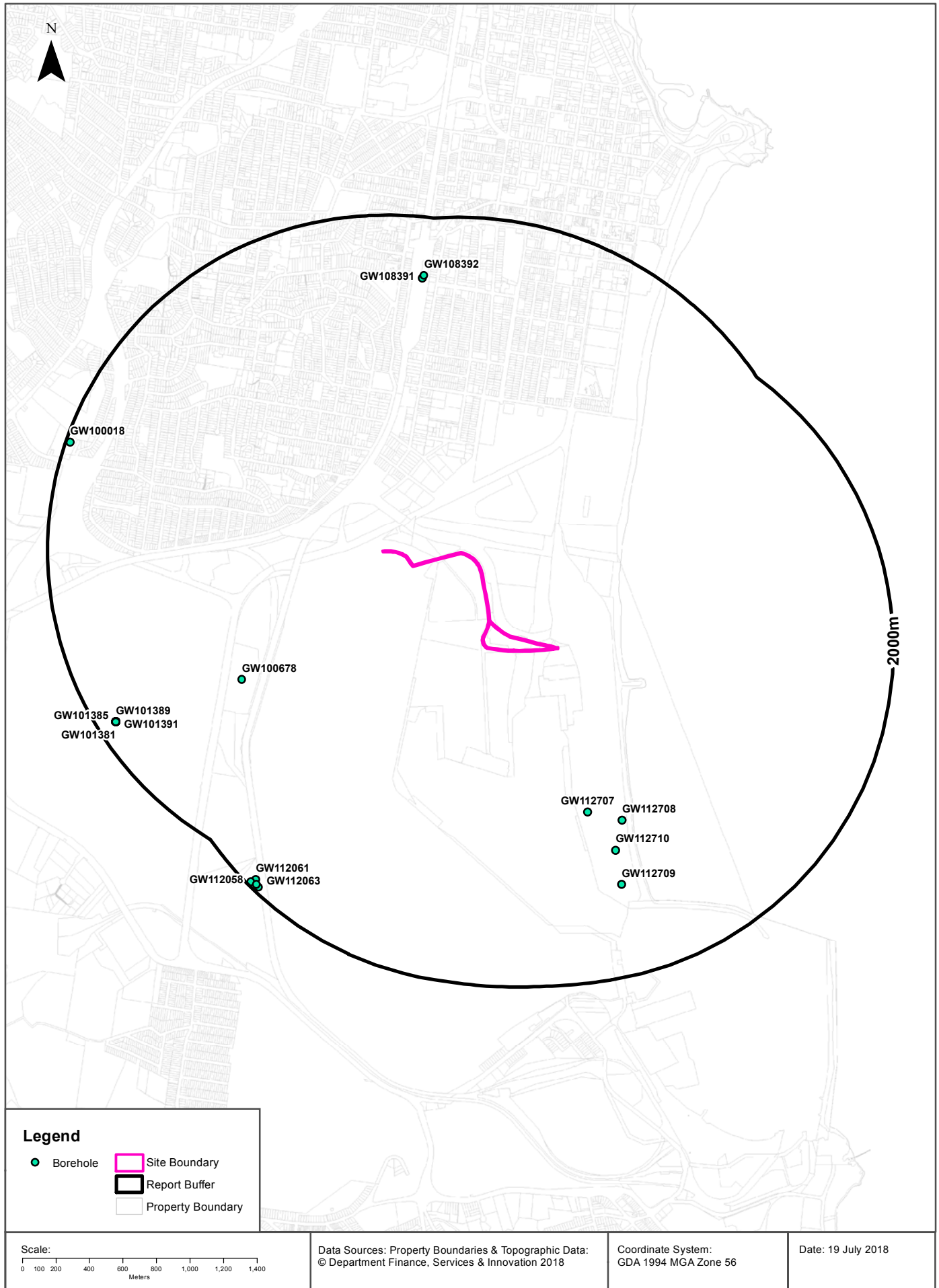


Groundwater Boreholes

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Hydrogeology & Groundwater

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Purpose	Contractor	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW112707	10BL605035	Bore	Private	Monitoring	Douglas Partners Pty Ltd	22/11/2011	6.50	6.50					991m	South East
GW112708	10BL605035	Bore	Private	Monitoring	Douglas Partners Pty Ltd	22/11/2011	7.50	7.50					1091 m	South East
GW100678	10BL156580	Bore	Private	Monitoring	KH Adams & Sons Pty Ltd	22/03/1995	65.00	65.00	2200	8.20	7.500		1133 m	West
GW112710	10BL605035	Bore	Private	Monitoring	Douglas Partners Pty Ltd	23/11/2011	7.00	7.00					1251 m	South East
GW112709	10BL605035	Bore	Private	Monitoring	Douglas Partners Pty Ltd	23/11/2011	6.00	6.00					1457 m	South East
GW108391	10BL600472	Bore				28/09/2007	6.20	6.20					1634 m	North
GW108392	10BL600472	Bore				28/09/2007	6.00	6.00		5.83			1651 m	North
GW101379	10BL156497	Bore	Mines	Monitoring		01/04/1992	9.60	9.60					1888 m	West
GW101383	10BL156497	Bore	Mines	Monitoring		22/04/1992	9.00	9.00					1888 m	West
GW101371	10BL156497	Bore	Mines	Monitoring		24/04/1992	8.60	8.60					1888 m	West
GW101391	10BL156497	Bore	Mines	Monitoring		18/05/1992	6.50	6.50					1888 m	West
GW101373	10BL156497	Bore	Mines	Monitoring		24/04/1992	8.00	8.00					1888 m	West
GW101390	10BL156497	Bore	Mines	Monitoring		18/05/1992	12.00	12.00					1888 m	West
GW101381	10BL156497	Bore	Mines	Monitoring		13/04/1992	32.50	32.50					1888 m	West
GW101366	10BL156497	Bore	Mines	Monitoring		28/04/1992	5.00	5.00					1888 m	West
GW101386	10BL156497	Bore	Mines	Monitoring		01/05/1992	10.10	10.10					1888 m	West
GW101392	10BL156497	Bore	Mines	Monitoring		15/05/1992	13.00	13.00					1888 m	West
GW101364	10BL156497	Bore	Mines	Monitoring		08/04/1992	7.90	7.90					1888 m	West
GW101369	10BL156497	Bore	Private	Monitoring		08/05/1992	6.50	6.60					1888 m	West
GW101384	10BL156497	Bore	Mines	Monitoring		29/04/1992	22.00	22.00					1888 m	West
GW101376	10BL156497	Bore	Mines	Monitoring		08/04/1992	11.80	11.80					1888 m	West
GW101367	10BL156497	Bore	Mines	Monitoring		04/05/1992	26.00	30.00					1888 m	West
GW101363	10BL156497	Bore	Mines	Monitoring		08/04/1992	21.00	21.00					1888 m	West
GW101387	10BL156497	Bore	Mines	Monitoring		30/04/1992	13.00	13.00					1888 m	West
GW101385	10BL156497	Bore	Mines	Monitoring		29/04/1992	6.00	6.00					1888 m	West
GW101377	10BL156497	Bore	Mines	Monitoring		09/04/1992	5.10	5.10					1888 m	West

GW No.	Licence No	Work Type	Owner Type	Purpose	Contractor	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW101375	10BL156497	Bore	Mines	Monitoring		12/05/1992	11.00	11.00					1888 m	West
GW101374	10BL156497	Bore	Mines	Monitoring		12/05/1992	38.60	38.60					1888 m	West
GW101368	10BL156497	Bore	Mines	Monitoring		14/05/1992	5.60	5.60					1888 m	West
GW101388	10BL156497	Bore	Mines	Monitoring		13/05/1992	10.00	10.00					1888 m	West
GW101365	10BL156497	Bore	Mines	Monitoring		28/04/1992	17.50	17.60					1888 m	West
GW101372	10BL156497	Bore	Mines	Monitoring		15/04/1992	26.70	26.70					1888 m	West
GW101370	10BL156497	Bore	Mines	Monitoring		23/04/1992	40.00	40.00					1888 m	West
GW101382	10BL156497	Bore	Mines	Monitoring		14/04/1992	13.50	13.50					1888 m	West
GW101551	10BL156497	Bore		Monitoring		18/05/1992	6.00	6.00					1888 m	West
GW101378	10BL156497	Bore	Mines	Monitoring		10/04/1992	19.60	19.60					1888 m	West
GW101389	10BL156497	Bore	Mines	Monitoring		13/05/1992	4.00	4.00					1888 m	West
GW101380	10BL156497	Bore	Mines	Monitoring		14/05/1992	15.00	15.00					1888 m	West
GW112061	10BL157702	Bore	Private	Monitoring		03/08/1994	1.20	1.20					1948 m	South West
GW112064	10BL157702	Bore	Private	Monitoring		03/08/1994	1.70	1.70					1964 m	South West
GW112063	10BL157702	Bore	Private	Monitoring		03/08/1994	1.50	1.50					1967 m	South West
GW100018	10BL156571, 10WA107737	Bore	Private	Recreation	Windley's Water Wells Pty Ltd	16/03/1995	36.00	36.00	Good	4.00	3.500		1972 m	West
GW112058	10BL157702	Bore	Private	Monitoring		03/08/1994	2.00	2.00					1976 m	South West

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

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Driller's Logs

Drill log data relevant to the boreholes within the dataset buffer:

Groundwater No	Drillers Log	Distance	Direction
GW100678	0.00m-0.60m TOPSOIL 0.60m-3.80m WEATHERED BASALT 3.80m-9.00m BASALT 9.00m-16.00m INDURATED SHALE 16.00m-65.00m SANDSTONE	1133m	West
GW108391	0.00m-0.40m FILL , GRAVEL 0.40m-1.50m FILL SAND 1.50m-2.50m CLAY 2.50m-6.20m CLAY	1634m	North
GW108392	0.00m-0.30m FILL, GRAVEL 0.30m-1.00m FILL. SAND 1.00m-1.90m CLAY BROWN 1.90m-6.00m CLAY DARK, BROWN	1651m	North
GW101363	0.00m-7.00m FILL. Dark slag fill range from 300mm near surface to 10mm and fines increase at depth 7.00m-10.00m CLAYS. Esturine. Dark brown to grey stiff esturine clays 10.00m-16.60m SANDSTONE. Weathered grey to light yellow. Drilled to refusal. 16.60m-21.00m SANDSTONE. Fresh grey sandstone. Water loss high.	1888m	West
GW101364	0.00m-6.80m FILL Dark slag fill size range from 300mm near surface to 10 mm and fines at increased depth 6.80m-7.90m CLAYS. Esturine. Dark brown to grey stiff esturine clays	1888m	West
GW101365	0.00m-2.00m FILL. Compacted coal wash reject 2.00m-12.60m CLAYS. ESTURINE. Dark brown to grey stiff esturine clays 12.60m-15.60m SANDSTONE. H.W. Sandstone becoming fresher with increasing depth 15.60m-17.60m SANDSTONE. Fresh grey sandstone	1888m	West
GW101366	0.00m-2.00m FILL. Compacted coalwash reject. 2.00m-5.00m CLAYS. ESTURINE. Dark brown to grey stiff esturine clays.	1888m	West
GW101367	1.80m-5.20m FILL. Compacted coal wash reject 5.20m-6.40m ESTURINE CLAYS. Dark brown to grey stiff esturine clays 6.40m-13.00m WEATHERED SANDSTONE. Green to grey weathered sandstone with minor gravels 13.00m-30.00m SANDSTONE. Fine grained grey fresh sandstone	1888m	West
GW101368	0.00m-1.40m FILL. Dark slag fill with fines and some clay> 1.40m-3.20m CLAY. Red to brown stiff clay. Some silt 3.20m-4.40m SAND. Grey to light brown silty sand> 4.40m-5.60m CLAY. Stiff grey clay.	1888m	West
GW101369	0.00m-0.60m TOP SOIL. Dark top soil 0.60m-1.80m FILL. Grey slag fill 1.80m-5.00m FILL. Compacted coal wash reject. 5.00m-6.40m ESTURINE CLAYS. Dark brown to grey stiff esturine clays. 6.40m-6.60m CLAY. Very silty clay.	1888m	West
GW101370	0.00m-5.40m FILL. Dark grey slag fill> Some brown slags present> 5.40m-7.60m ESTURINE CLAY. Firm to stiff orange brown clay becoming grey with increasing depth. Some gravels. 7.60m-20.00m ESTURINE CLAYS. Dark brown to grey stiff esturine clays. At 15.8 m Grey stiff clays. At 17.9m Interbedded sands and clays. 20.00m-22.40m ESTURINE CLAYS. Dark brown to grey stiff esturine clays interbedded with sands> 22.40m-23.40m RESIDUAL CLAY. Light green clays> 23.40m-31.20m WEATHERED SANDSTONE. Fine grained highly weathered green sandstone 31.20m-40.00m SANDSTONE. Fine grained fresh grey sandstone.	1888m	West
GW101371	0.00m-5.40m FILL. Dark slag fill. Some brown slags present. 5.40m-7.60m CLAY, ESTURINE. Firm to stiff orange brown clay becoming grey with increasing depth. Some gravels 7.60m-8.60m CLAY, ESTURINE. Dark brown to grey stiff esturine clays>	1888m	West
GW101372	0.00m-3.40m FILL. Dark grey slag fill. Some brown slags present. 3.40m-6.40m CLAY. Light brown to bright orange wet clay. Possibly of filter cake or flue dust origin 6.40m-19.20m CLAY, ESTURINE. Dark brown to grey stiff esturine clays. 19.20m-22.40m SANDSTONE. E.W. Light brown sandstone. 22.40m-26.70m SANDSTONE. Fresh grey fine grained sandstone.	1888m	West

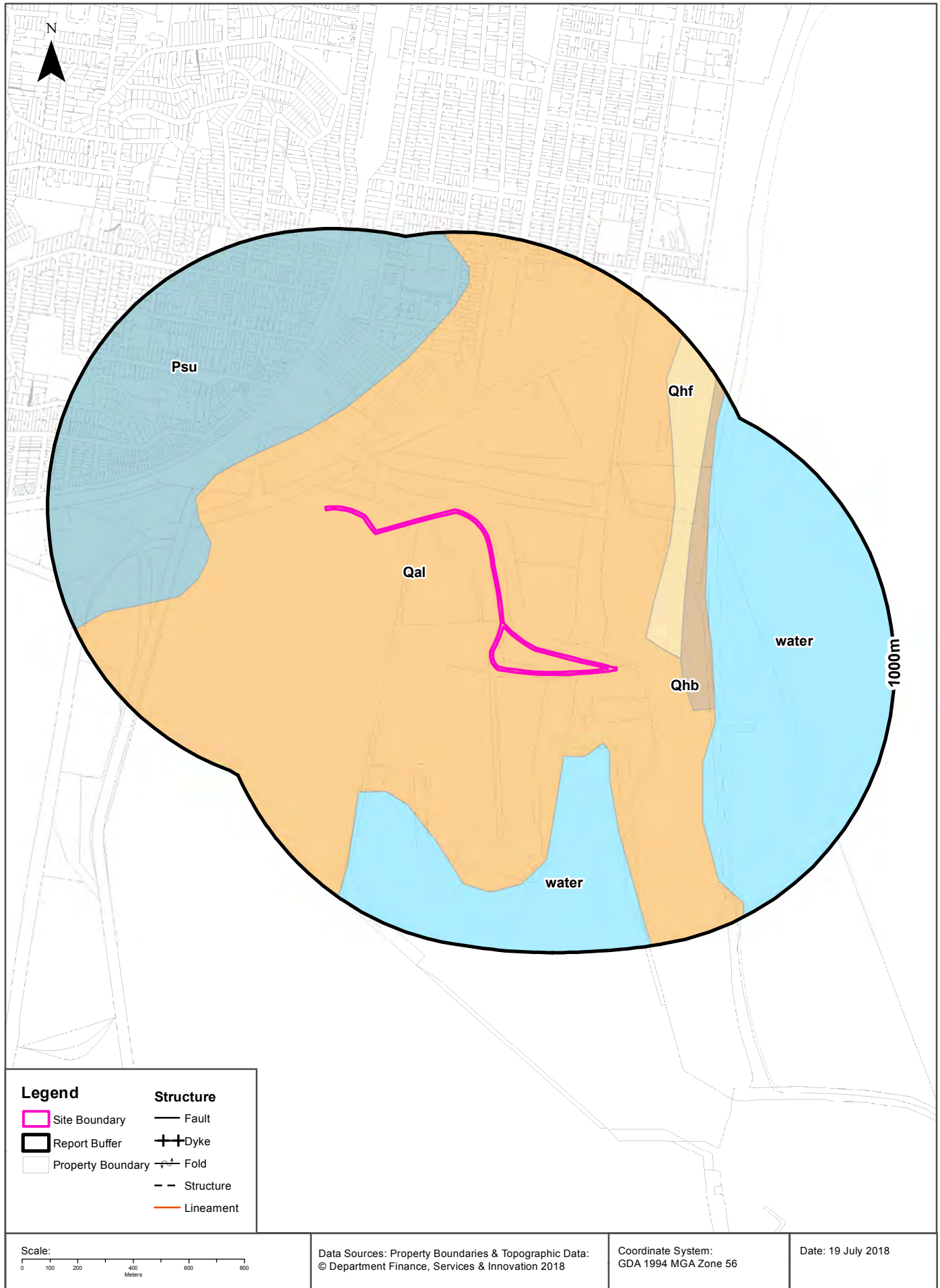
Groundwater No	Drillers Log	Distance	Direction
GW101373	0.00m-3.40m FILL.Dark grey slag fill. Some brown slags present 3.40m-6.40m CLAY.Light brown to bright orange wet clay.Possibly of filter cake or flue dust origin. 6.40m-8.00m CLAY,ESTURINE.Dark brown to grey stiff esturine clays.	1888m	West
GW101374	0.00m-0.60m CLAY. Loose sandy clay. 0.60m-9.00m CLAY. Firm sandy grey to brown clay. 9.00m-10.00m CLAY, ESTURINE. Sandy clay esturine clays> 10.00m-21.00m CLAYS, ESTURINE. Sandy esturine clays with some fine gravels. 21.00m-38.60m SANDSTONE.Fine to medium grained fresh grey sandstone.	1888m	West
GW101375	0.00m-0.60m CLAY. Loose sandy clay 0.60m-9.00m CLAY. Firm sandy grey to brownclay> 9.00m-11.00m CLAYS,ESTURINE.Sandy clay. esturine clays,	1888m	West
GW101376	0.00m-3.00m FILL. Slag fill with some dark clays. 3.00m-4.80m GRAVELS.Gravel particles to 6mm size.Sand and clay present.EW Sandstone. 4.80m-8.20m SANDSTONE.EW toW light brown sandstone becoming harder with increased depth. 8.20m-11.80m SANDSTONE.Fresh fine grained grey sandstone.	1888m	West
GW101377	0.00m-3.00m FILL. Slag fill with some dark clays. 3.00m-5.10m GRAVELS.Gravel particles to 6mm size.Sand and clay present.EW Sandstone.	1888m	West
GW101378	0.00m-8.60m FILL.Dark slag fill size range from 300mm near surface to 10mm & fines at increased depth. 8.60m-16.20m CLAY,ESTURINE.Dark grey stiff esturine clay. 16.20m-17.40m CLAY,ESTURINE.Dark grey stiff esturine clays with some minor sandstone particles. 17.40m-19.60m SANDSTONE.Fresh hard grey sandstone.	1888m	West
GW101379	0.00m-8.60m FILL.Dark slag fill size range from 300mm near surface to 10mm& fines at increased depth. 8.60m-9.60m CLAY,ESTURINE.Dark grey stiff esturine clay.	1888m	West
GW101380	0.00m-1.40m FILL.Dark slag fill with fines and some clay 1.40m-3.20m CLAY.Red to brown stiff clay.Some silt. 3.20m-4.40m SAND.Grey to light brown silty sand. 4.40m-6.00m CLAY.Stiff grey clay. 6.00m-6.80m SAND.Light brown silty sand. 6.80m-7.00m CLAY. Stiff grey to brown clay. 7.00m-9.00m SANDSTONE.Gravelly residual brown to yellow sandstone. 9.00m-12.40m SANDSTONE.Moderately weathered yellow sandstone. 12.40m-15.00m SANDSTONE.Fresh light brown to yellow Budgong sandstone.	1888m	West
GW101381	0.00m-11.40m FILL. Mixed fill consisting of slag< filter cake and coalwash reject> Nodifinite bands-generally mixed. 11.40m-19.20m CLAY,ESTURINE:Grey esturine clay with some thin sand bands. Organic material< wood and root fragments. 19.20m-27.40m SANDSTONE.Weathered soft sandstone.Becomes less weathered with increasing depth. 27.40m-30.00m SANDSTONE.Brown to yellow slightly weathered sandstone. 30.00m-32.50m SANDSTONE.Fresh hard grey sandstone.	1888m	West
GW101382	0.00m-12.00m FILL.Mixed fill consisting of slag,Filter cake and coal wash reject. No difinite bands-generally mixed. 12.00m-13.50m CLAYS, ESTURINE.Firm dark esturine clays.	1888m	West
GW101383	0.00m-7.60m FILL.Dark slag fill size range from 300mm near surface to 10mm and fines at increased depth. 7.60m-9.00m CLAY,ESTURINE.Dark grey stiff esturine clay.	1888m	West
GW101384	0.00m-3.00m FILL, Compacted coal wash reject with brown clays and gravels. 3.00m-15.00m CLAYS,ESTURINE.Dark brown to grey stiff esturine clays. 15.00m-20.00m SAND. Light brown to yellow sands. 20.00m-20.80m SANDSTONE. Extremely to weathered sandstone. 20.80m-22.00m SANDSTONE. Fresh hard light brown sandstone.	1888m	West
GW101385	0.00m-3.00m FILL.Compacted coal wash reject with brown clays and gravels. 3.00m-6.00m CLAYS,ESTURINE Dark brown to grey stiff esturine clays.	1888m	West
GW101386	0.00m-9.00m FILL.Hard coal wash reject with slag possibly of open hearth furnace origin 9.00m-10.10m CLAYS,ESTURINE.Dark brown to grey stiff esturine clays.	1888m	West
GW101387	0.00m-7.20m FILL. Hard coal wash reject with slag possibly of open hearth furnace origin 7.20m-8.20m CLAYS,ESTURINE.Dark brown to grey stiff esturine clays. 8.20m-13.00m SANDSTONE.E.W. Sandstone with sandy clay.	1888m	West
GW101388	0.00m-1.40m FILL.Dark brown to grey soils with some clay.May be from North Wall construction.Becomes brown clay with incr. depth. 1.40m-5.00m CLAY.Red to brown stiff clay> Some silty sand and pebbles up to 20mm. 5.00m-6.00m SANDSTONE.Light brown weathered sandstone. 6.00m-10.00m SANDSTONE.Fresh hard grey sandstone.	1888m	West
GW101389	0.00m-1.40m FILL. Dark brown to grey soils with some clay.May be from North Wall construction. Becomes brown clay with incrs.depth. 1.40m-4.00m CLAY.Red to brown stiff clay.Some silt.	1888m	West
GW101390	0.00m-2.00m TOP SOIL.Dark topsoil turning to soft brown clays. 2.00m-3.00m CLAY.Firm brown to light brown clay. 3.00m-7.00m CLAY.Red to brown stiff clay.Some silt. 7.00m-8.00m SANDSTONE.Extremely to weathered light brown sandstone. 8.00m-12.00m SANDSTONE. Fresh hard yellow to grey sandstone	1888m	West

Groundwater No	Drillers Log	Distance	Direction
GW101391	0.00m-0.40m TOP SOIL.Dark topsoil 0.40m-5.20m CLAY.Firm brown to light brown clay. 5.20m-6.50m CLAY.Red to brown stiff clay.Some silt	1888m	West
GW101392	0.00m-0.40m TOP SOIL.Dark topsoil 0.40m-5.20m CLAY.Firm brown to light brown clay 5.20m-7.00m CLAY.Red to brown stiff clay. Some silt 7.00m-7.60m CLAY.Stiff grey sandy clay. 7.60m-8.40m SANDSTONE.Extremely weathered light brown sandstone 8.40m-9.40m SANDSTONE.Weathered light brown to grey sandstone 9.40m-13.00m SANDSTONE.Fresh grey sandstone.	1888m	West
GW101551	0.00m-2.00m TOP SOIL. Dark topsoil turning to soft brown clays 2.00m-3.00m CLAY. Firm brown to light brown clay. 3.00m-6.00m CLAY. Red to brown stiff clay. Some silt	1888m	West
GW100018	0.00m-1.00m SOIL & CLAY FILL 1.00m-6.00m MUD SILT 6.00m-15.00m GRAVEL 15.00m-36.00m SANDSTONE	1972m	West

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp
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Geology 1:100,000

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Geology

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Geological Units

What are the Geological Units onsite?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Qal	quartz and lithic "fluvial" sand, silt, and clay						Wollongong & Port Hacking	1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Psu	red, brown, and grey lithic sandstone	Budgong Sandstone	Shoalhaven Group				Wollongong & Port Hacking	1:100,000
Qal	quartz and lithic "fluvial" sand, silt, and clay						Wollongong & Port Hacking	1:100,000
Qhb	"marine" quartz sand, medium to coarse, with shelly fragments						Wollongong & Port Hacking	1:100,000
Qhf	"marine quartz sand , fine to medium, shelly. Leached to varying degrees						Wollongong & Port Hacking	1:100,000
water							Wollongong & Port Hacking	1:100,000

Geological Structures

What are the Geological Structures onsite?

Feature	Name	Description	Map Sheet	Dataset
No features				1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Dataset
No features				1:100,000

Geological Data Source : NSW Department of Industry, Resources & Energy

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Naturally Occurring Asbestos Potential

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Mining Subsidence District Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

Soil Landscapes

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Soils

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Soil Landscapes

What are the onsite Soil Landscapes?

Soil Code	Name	Group	Process	Map Sheet	Scale
DTxx	DISTURBED TERRAIN		DISTURBED TERRAIN	Wollongong & Port Hacking	1:100,000
WATER	WATER		WATER	Wollongong & Port Hacking	1:100,000

What are the Soil Landscapes within the dataset buffer?

Soil Code	Name	Group	Process	Map Sheet	Scale
BEwg	WOLLONGONG		BEACH	Wollongong & Port Hacking	1:100,000
DTxx	DISTURBED TERRAIN		DISTURBED TERRAIN	Wollongong & Port Hacking	1:100,000
REgw	GWYNNEVILLE		RESIDUAL	Wollongong & Port Hacking	1:100,000
WATER	WATER		WATER	Wollongong & Port Hacking	1:100,000

Soils Landscapes Data Source : NSW Office of Environment and Heritage

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Atlas of Australian Soils

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Legend Site Boundary Report Buffer Property Boundary		Australian Soil Classification Orders <table border="0"> <tr> <td> Anthroposol</td> <td> Dermosol</td> <td> Kandosol</td> <td> Podosol</td> <td> Tenosol</td> <td> No Data</td> </tr> <tr> <td> Calcarosol</td> <td> Ferrosol</td> <td> Kurosol</td> <td> Rudosol</td> <td> Vertosol</td> <td></td> </tr> <tr> <td> Chromosol</td> <td> Hydrosol</td> <td> Organosol</td> <td> Sodosol</td> <td> Lake</td> <td></td> </tr> </table>						Anthroposol	Dermosol	Kandosol	Podosol	Tenosol	No Data	Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol		Chromosol	Hydrosol	Organosol	Sodosol	Lake	
Anthroposol	Dermosol	Kandosol	Podosol	Tenosol	No Data																				
Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol																					
Chromosol	Hydrosol	Organosol	Sodosol	Lake																					
Scale: 		Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018		Coordinate System: GDA 1994 MGA Zone 56		Date: 19 July 2018																			

Soils

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance
Ca6	Podosol	Dunes of leached sands (Uc2.2) with some areas of (Uc2.3) soils in low-lying situations, also (Dy5.41) soils in some localities, and flanked by some dunes of calcareous sands (Uc1.11) along the coast.	0m
Me2	Dermosol	Steep hilly to mountainous with incised stream valleys: steep but more or less rounded hill slopes of brown friable earths (Gn3.21 and Gn3.22) and possibly some (Gn4) soils, in association with: at the higher altitudes, steep hill slopes of sandy soils (Uc4.2), loamy soils having an A2 horizon (Um4.2) with yellow-brown earths (Gn2.44), and possibly (Uc6.11) and (Um5.41) soils; and at the lower altitudes, moderate to steep slopes of hard acidic yellow mottled soils (Dy3 21 and Dy3.41), hard acidic red soils (Dr2.21), and yellow leached friable earths (Gn3.54); and narrow incised stream valleys of various soils including (Um6.11) and (Dy) soils. This unit is a broad one. In some areas the (Um4.2) and (Gn2.44) soils and in others the (Dy) and (Dr) soils rather than the (Gn3) soils could be dominant.	0m

Atlas of Australian Soils Data Source: CSIRO

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Acid Sulfate Soils

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Standard Local Environmental Plan Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	LEP
N/A		

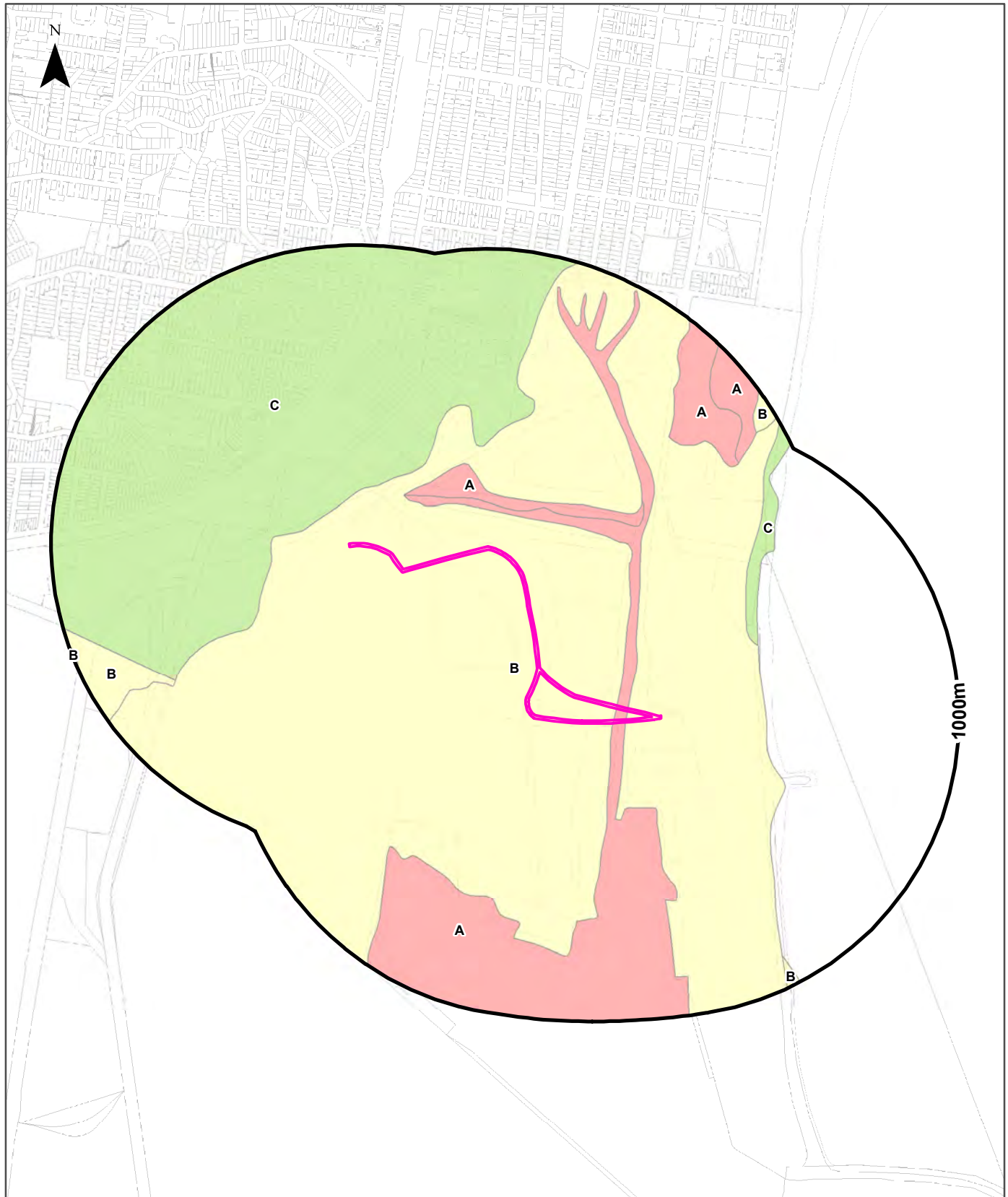
If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	LEP	Distance	Direction
N/A				

Acid Sulfate Data Source Accessed 07/10/2016: NSW Crown Copyright - Planning and Environment
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Atlas of Australian Acid Sulfate Soils

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Legend		Probability of occurrence of Acid Sulfate Soils	
Site Boundary	A. High (>70%)	C. Extremely Low (1-5%)	No Data
Report Buffer	B. Low (6-70%)	D. No Chance (0%)	
Property Boundary			
Scale: 0 100 200 400 600 800 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018	Coordinate System: GDA 1994 MGA Zone 56	Date: 19 July 2018

Acid Sulfate Soils

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance
A	High Probability of occurrence. >70% chance of occurrence.	0m
B	Low Probability of occurrence. 6-70% chance of occurrence.	0m
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	124m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Dryland Salinity

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A	N/A	N/A

Dryland Salinity Data Source : National Land and Water Resources Audit

The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.

In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
N/A	Outside Data Coverage			

Dryland Salinity Potential of Western Sydney Data Source : NSW Office of Environment and Heritage

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Mining Subsidence Districts

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Mining Subsidence Districts

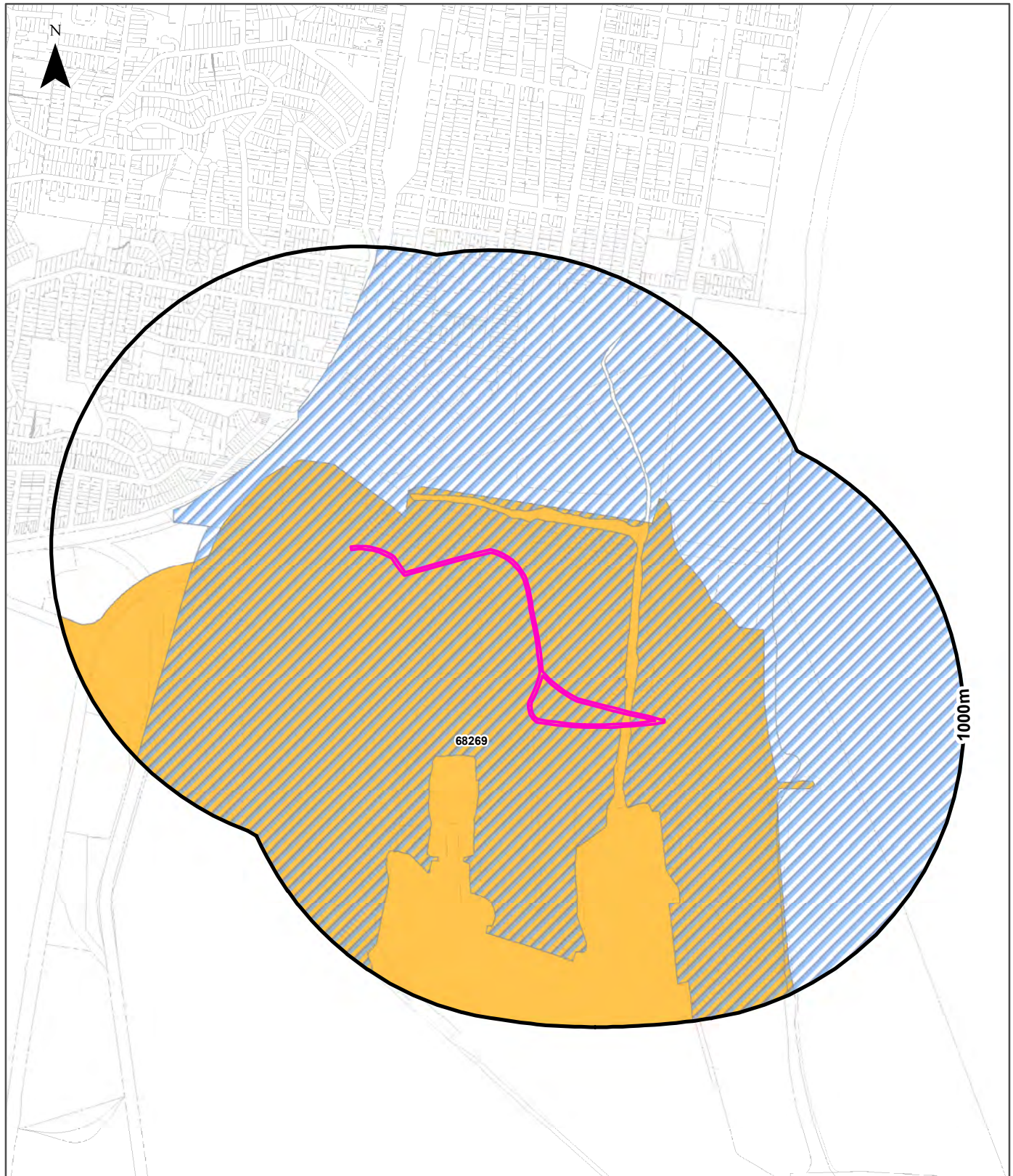
Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)
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State Environmental Planning Policy

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Legend		
Site Boundary	SEPP 14 - Coastal Wetlands	Strategic Land Use - Future Residential Growth Areas
Report Buffer	SEPP 26 - Littoral Rainforests	Strategic Land Use - Additional Rural Village Land
Property Boundary	SEPP 71 - Coastal Protection	Strategic Land Use -Biophysical Strategic Agricultural Land
	SEPP Major Developments 2005	Strategic Land Use -Critical Industry Cluster (Equine)
		Strategic Land Use -Critical Industry Cluster (Viticulture)

<p>Scale:</p>	<p>Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018</p>	<p>Coordinate System: GDA 1994 MGA Zone 56</p>	<p>Date: 19 July 2018</p>
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Environmental Zoning

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

State Environmental Planning Policy Protected Areas

Are there any State Environmental Planning Policy Protected Areas onsite or within the dataset buffer?

Dataset	Onsite	Within Site Buffer	Distance
SEPP14 - Coastal Wetlands	No	No	N/A
SEPP26 - Littoral Rainforests	No	No	N/A
SEPP71 - Coastal Protection Zone	Yes - SEPP71 covers 97.47% of the site	Yes	0m

SEPP Protected Areas Data Source: NSW Department of Planning & Environment
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State Environmental Planning Policy Major Developments (2005)

State Environmental Planning Policy Major Developments within the dataset buffer:

Map Id	Feature	Effective Date	Distance	Direction
68269	Three Ports - Port Kembla	24/07/2009	0m	Onsite

SEPP Major Development Data Source: NSW Department of Planning & Environment
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State Environmental Planning Policy Strategic Land Use Areas

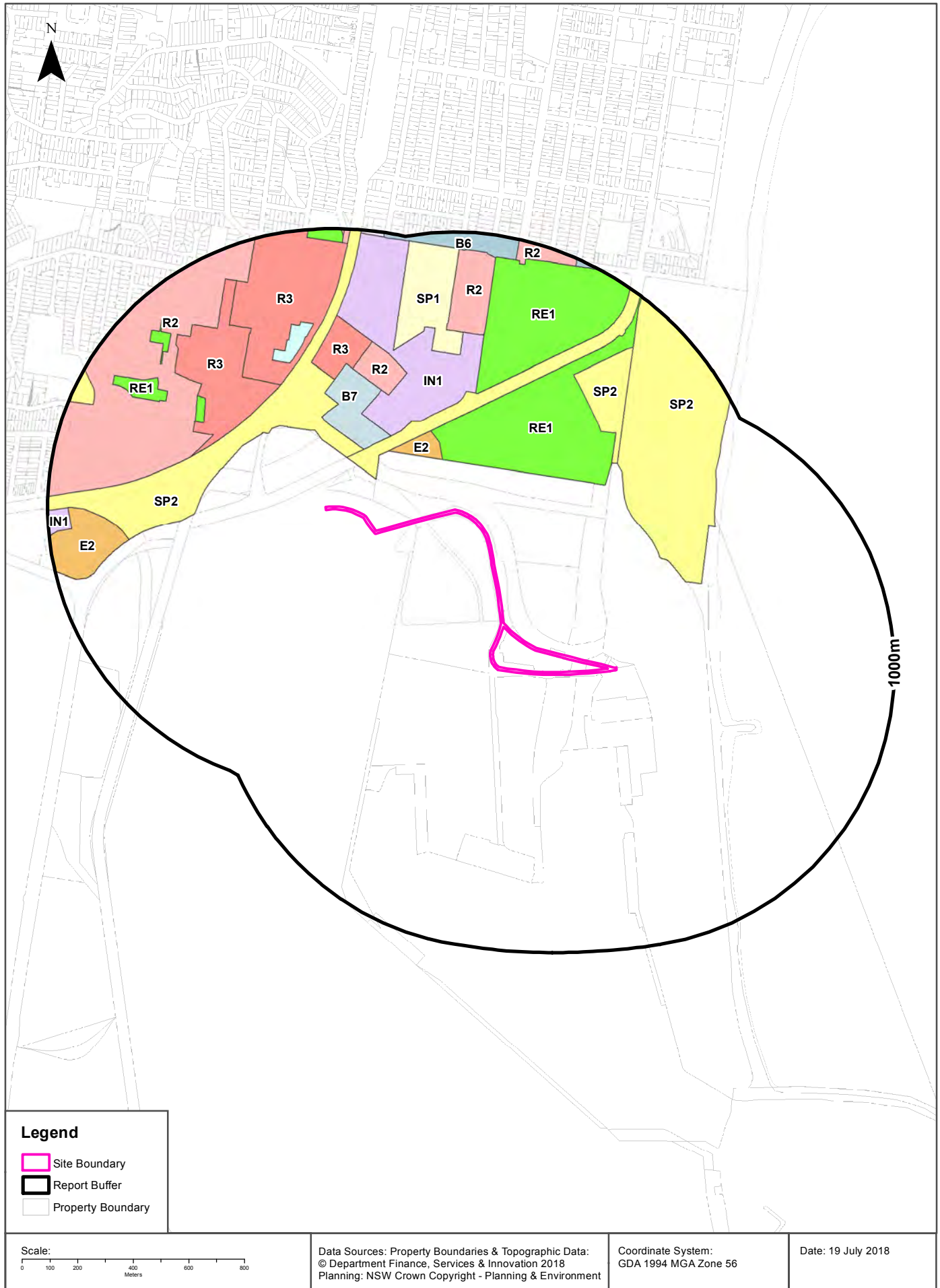
State Environmental Planning Policy Strategic Land Use Areas onsite or within the dataset buffer:

Strategic Land Use	SEPPNo	Effective Date	Amendment	Amendment Year	Distance	Direction
No records within buffer						

SEPP Strategic Land Use Data Source: NSW Department of Planning & Environment
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LEP Planning Zones

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Local Environmental Plan

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Land Zoning

What Local Environmental Plan Land Zones exist within the dataset buffer?

Zone	Description	Purpose	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP2	Infrastructure	Road	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		135m	North
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		172m	North
SP2	Infrastructure	Railway	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		179m	West
E2	Environmental Conservation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		187m	North West
B7	Business Park		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		219m	North West
IN1	General Industrial		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		299m	North
SP2	Infrastructure	Sewerage System	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		395m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		425m	North
R3	Medium Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		427m	North West
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		432m	North West
R3	Medium Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		458m	North West
R3	Medium Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		470m	North West
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		479m	North West
SP2	Infrastructure	Heliport and Parking	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		515m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		533m	North West
B1	Neighbourhood Centre		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		534m	North West
SP1	Special Activities	Cemetery	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		557m	North
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		636m	North
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		689m	North West
E2	Environmental Conservation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		716m	West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		783m	North West
SP2	Infrastructure	Telecommunications	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		913m	North West
IN1	General Industrial		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		915m	West
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		915m	North
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		918m	North
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		950m	North West
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		974m	North
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	27/01/2012	27/01/2012	16/02/2018	Amendment No 10	974m	North

Zone	Description	Purpose	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
IN2	Light Industrial		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		983m	North
E3	Environmental Management		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	16/02/2018		992m	North West

Local Environment Plan Data Source: NSW Crown Copyright - Planning & Environment
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Local Environmental Plan

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Minimum Subdivision Lot Size

What are the onsite Local Environmental Plan Minimum Subdivision Lot Sizes?

Symbol	Minimum Lot Size	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
No Data							

Maximum Height of Building

What are the onsite Local Environmental Plan Maximum Height of Buildings?

Symbol	Maximum Height of Building	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
No Data							

Floor Space Ratio

What are the onsite Local Environmental Plan Floor Space Ratios?

Symbol	Floor Space Ratio	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
No Data							

Land Application

What are the onsite Local Environmental Plan Land Applications?

Application Type	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
No Data						

Land Reservation Acquisition

What are the onsite Local Environmental Plan Land Reservation Acquisitions?

Reservation	LEP	Published Date	Commenced Date	Currency Date	Amendment	Comments	Percentage of Site Area
No Data							

Local Environment Plan Data Source: NSW Crown Copyright - Planning & Environment
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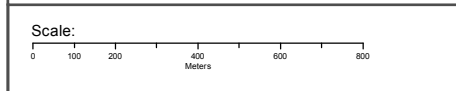
Heritage Items

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Legend

- Site Boundary
- Report Buffer
- Property Boundary
- State Heritage Items
- Local Heritage Items



Data Sources: Property Boundaries & Topographic Data:
 © Department Finance, Services & Innovation 2018
 Heritage - NSW Crown Copyright - Planning & Environment

Coordinate System:
 GDA 1994 MGA Zone 56

Date: 19 July 2018

Heritage

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

State Heritage Items

What are the State Heritage Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: NSW Crown Copyright - Planning & Environment
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Local Heritage Items

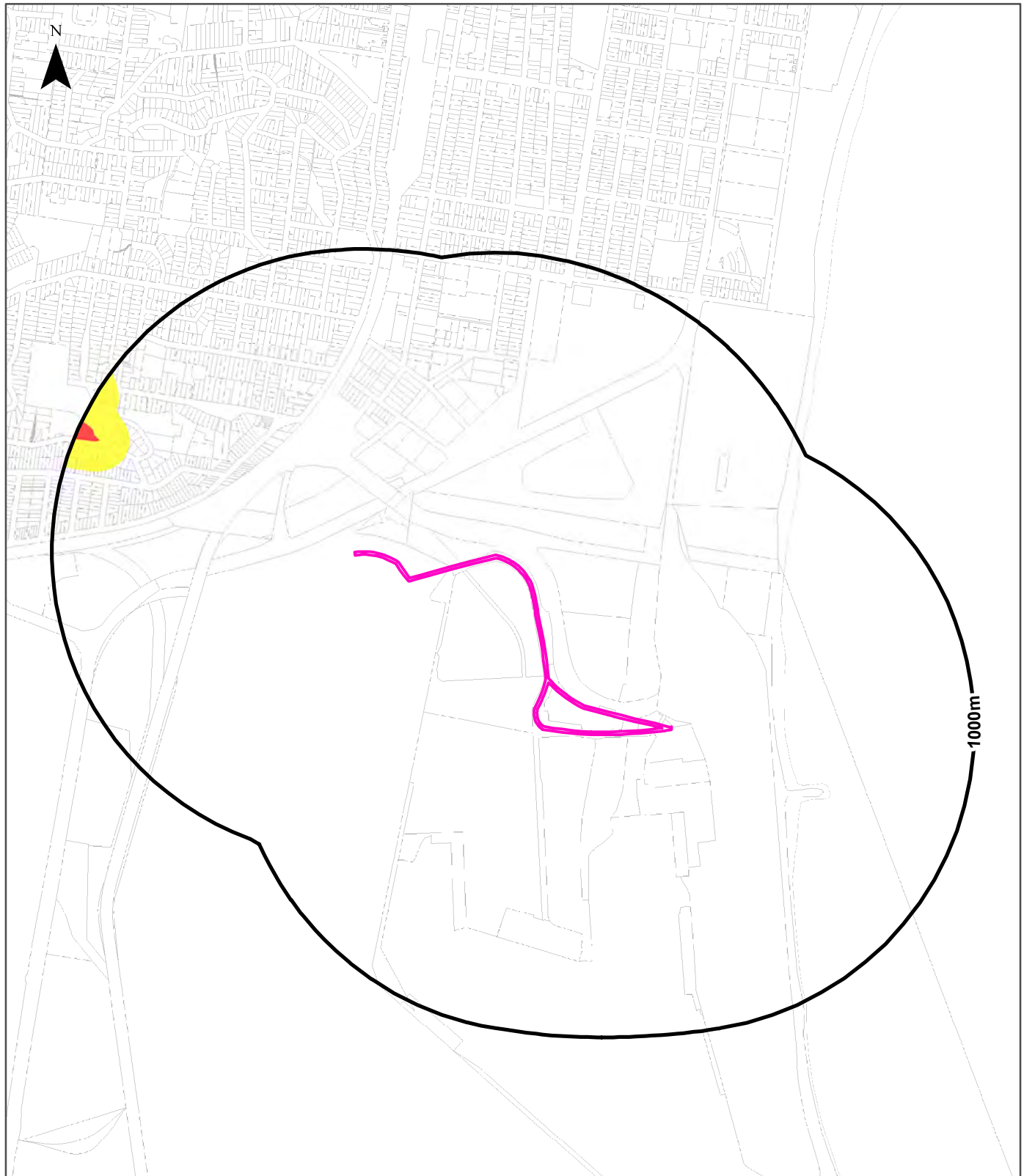
What are the Local Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	LEP or Act	Published Date	Commenced Date	Currency Date	Distance	Direction
6227	House	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	09/02/2018	534m	North West
6591	Methodist Cemetery	Item - Landscape	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	09/02/2018	557m	North
6282	Wollongong General Cemetery Including Nicholle Vault	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	09/02/2018	591m	North
6404	Stand Of Spotted Gum	Item - Landscape	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	09/02/2018	690m	North West
6405	Fort Drummond Including Stand Of Spotted Gum	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	09/02/2018	913m	North West

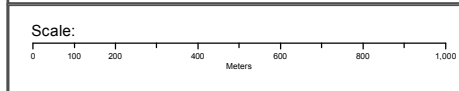
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Natural Hazards - Bush Fire Prone Land

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Legend		Bush Fire Prone Land Category	
	Site Boundary		Vegetation Category 1
	Report Buffer		Vegetation Category 2
	Property Boundary		Vegetation Category 3
			Vegetation Buffer



Data Sources: Bush Fire Prone Land: © NSW Rural Fire Service 2018. Property Boundaries: © Department Finance, Services & Innovation 2018

Coordinate System:
GDA 1994 MGA Zone 56

Date: 19 July 2018

Natural Hazards

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Bush Fire Prone Land

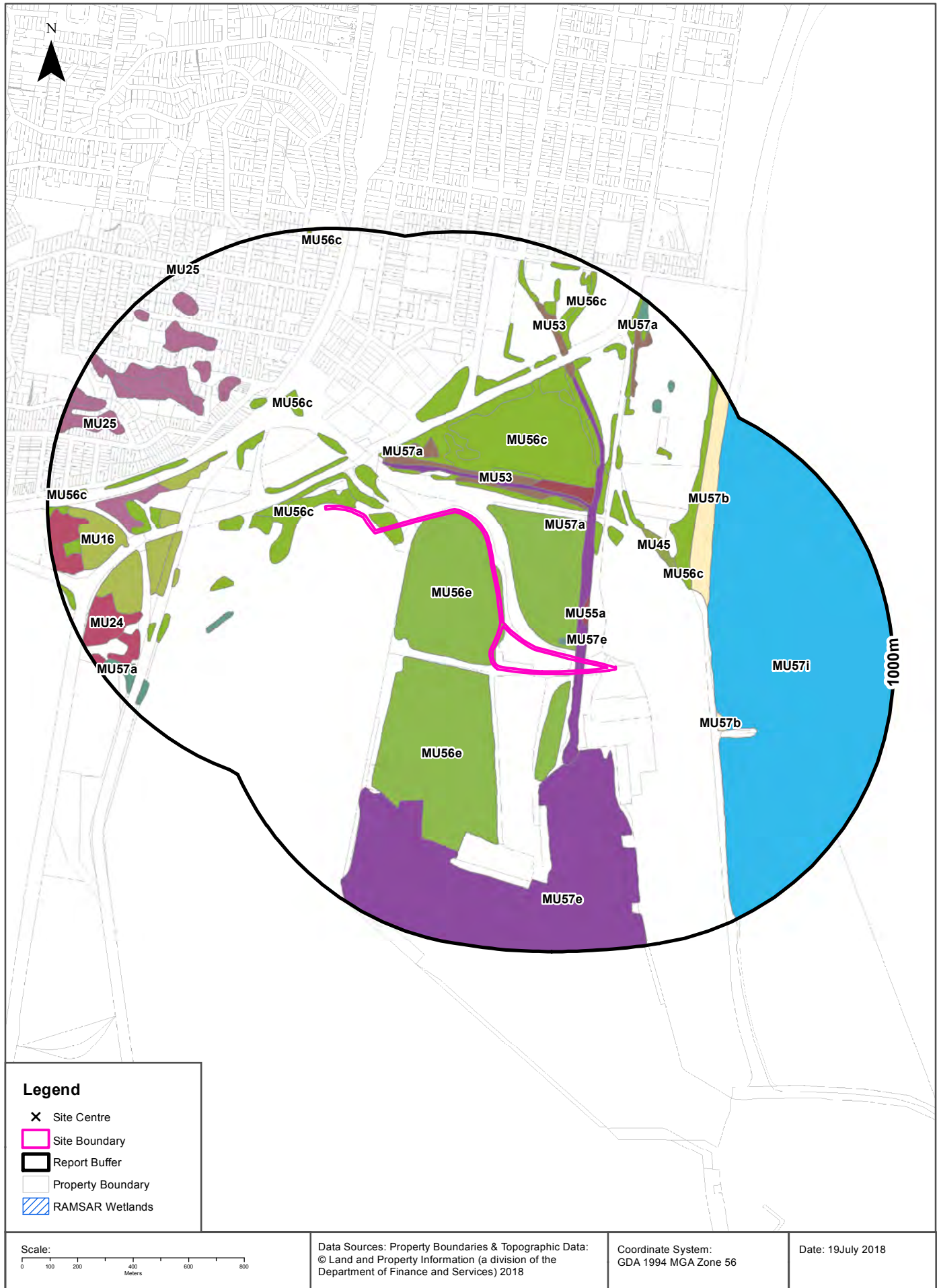
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	818m	North West
Vegetation Category 1	918m	North West

NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence

Ecological Constraints - Vegetation & RAMSAR Wetlands

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Ecological Constraints

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Native Vegetation of the Illawarra Escarpment & Coastal Plain

What Native Vegetation of the Illawarra Escarpment & Coastal Plain exists within the dataset buffer?

Veg Code	Vegetation Community	Disturbance Class	Disturbance Type	Understorey	Broad Vegetation Type	Endangered Ecological Community	Distance	Direction
MU56c	Weeds and Exotics	Weeds and Exotics			Weeds and Exotics		0m	Onsite
MU56e	Modified Lands	Weeds and Exotics			Cleared		0m	Onsite
MU57e	Estuarine Lagoons and Channels	Unassessed			Wetlands		0m	Onsite
MU57a	Artificial Wetlands	Unassessed			Wetlands		31m	South East
MU53	Estuarine Alluvial Wetland	Unassessed			Native Vegetation	Sydney Coastal Estuary Swamp Complex	101m	North
MU55a	Seagrass Meadows and Estuarine Flats	Unassessed			Seagrass		121m	East
MU57i	Water	Water			Water		342m	South East
MU57b	Beach Sand	Unassessed			Rocks		388m	North East
MU45	Coastal Sand Scrub	High Disturbance	Weeds	Not Described	Native Vegetation		392m	East
MU16	Escarpment Blackbutt Forest	Scattered Trees			Scattered Trees		443m	West
MU16	Escarpment Blackbutt Forest	Moderate Disturbance	Weeds	Shrubs and Grasses	Native Vegetation		520m	West
MU25	Spotted Gum Open Forest	Scattered Trees			Scattered Trees		520m	North West
MU25	Spotted Gum Open Forest	High Disturbance	Weeds	Shrubs and Grasses	Native Vegetation		554m	West
MU25	Spotted Gum Open Forest	High Disturbance	Weeds	Mesic/Rainforest Shrub Layer	Native Vegetation		618m	North West
MU24	Lowland Woollybutt-Melaleuca Forest	Moderate Disturbance	Weeds	Melaleuca Dominant	Native Vegetation	Illawarra Coastal Grassy Woodlands	758m	West
MU24	Lowland Woollybutt-Melaleuca Forest	Scattered Trees			Scattered Trees	Illawarra Coastal Grassy Woodlands	801m	West

Native Vegetation of the Illawarra Escarpment & Coastal Plain : NSW Office of Environment and Heritage
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RAMSAR Wetlands

What RAMSAR Wetland areas exist within the dataset buffer?

Map Id	RAMSAR Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

RAMSAR Wetlands Data Source: © Commonwealth of Australia - Department of Environment

Ecological Constraints - Groundwater Dependent Ecosystems Atlas

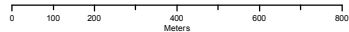
Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Legend

- | | | |
|---------------------|---|---|
| Site Boundary | High potential GDE - from national assessment | Low potential GDE - from national assessment |
| Report Buffer | High potential GDE - from regional studies | Low potential GDE - from regional studies |
| Property Boundaries | Moderate potential GDE - from national assessment | Known GDE - from regional studies |
| | Moderate potential GDE - from regional studies | Unclassified potential GDE - from national assessment |
| | | Unclassified potential GDE - from regional studies |

Scale:



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2018

Coordinate System:
GDA 1994 MGA Zone 56

Date: 19 July 2018

Ecological Constraints

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial	Low potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		0m
Terrestrial	Low potential GDE - from regional studies	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		0m
Terrestrial	High potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		14m
Terrestrial	Moderate potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		442m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
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Ecological Constraints - Inflow Dependent Ecosystems Likelihood

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)



Ecological Constraints

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial	7	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		0m
Terrestrial	8	Deeply dissected sandstone plateaus.	Vegetation		0m
Terrestrial	2	Deeply dissected sandstone plateaus.	Vegetation		14m
Terrestrial	4	Deeply dissected sandstone plateaus.	Vegetation		75m
Terrestrial	6	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		158m
Terrestrial	3	Deeply dissected sandstone plateaus.	Vegetation		164m
Terrestrial	5	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		258m
Terrestrial	10	Deeply dissected sandstone plateaus.	Vegetation		698m
Terrestrial	1	Deeply dissected sandstone plateaus.	Vegetation		787m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
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Ecological Constraints

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 4)

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria littlejohni	Littlejohn's Tree Frog	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardea ibis	Cattle Egret	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Ardenna carneipes	Flesh-footed Shearwater	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Ardenna pacificus	Wedge-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Arenaria interpres	Ruddy Turnstone	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris alba	Sanderling	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Listed	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curllew Sandpiper	Endangered	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris melanotos	Pectoral Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calonectris leucomelas	Streaked Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calyptorhynchus lathamii	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Coracina lineata	Barred Cuckoo-shrike	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Diomedea exulans	Wandering Albatross	Endangered	Not Sensitive	Endangered	JAMBA
Animalia	Aves	Diomedea gibsoni	Gibson's Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Egretta sacra	Eastern Reef Egret	Not Listed	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Fregata ariel	Lesser Frigatebird	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Grantiella picta	Painted Honeyeater	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Gygis alba	White Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus fuliginosus	Sooty Oystercatcher	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus longirostris	Pied Oystercatcher	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Limicola falcinellus	Broad-billed Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Macronectes giganteus	Southern Giant Petrel	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Macronectes halli	Northern Giant-Petrel	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius madagascariensis	Eastern Curlew	Not Listed	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Oxyura australis	Blue-billed Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pachycephala olivacea	Olive Whistler	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	<i>Pandion cristatus</i>	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Petroica phoenicea</i>	Flame Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Petroica rodinogaster</i>	Pink Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Phaethon lepturus</i>	White-tailed Tropicbird	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	<i>Pluvialis fulva</i>	Pacific Golden Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Pluvialis squatarola</i>	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Polytelis anthopeplus monarchoides</i>	Regent Parrot (eastern subspecies)	Endangered	Category 3	Vulnerable	
Animalia	Aves	<i>Polytelis swainsonii</i>	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	<i>Pterodroma leucoptera leucoptera</i>	Gould's Petrel	Vulnerable	Not Sensitive	Endangered	
Animalia	Aves	<i>Ptilinopus magnificus</i>	Wompoo Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Ptilinopus regina</i>	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Ptilinopus superbus</i>	Superb Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Puffinus assimilis</i>	Little Shearwater	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Stercorarius parasiticus</i>	Arctic Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	<i>Sternula albifrons</i>	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Stictonetta naevosa</i>	Freckled Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Thalassarche impavida</i>	Campbell Albatross	Not Listed	Not Sensitive	Vulnerable	
Animalia	Aves	<i>Thalassarche melanophris</i>	Black-browed Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	<i>Thalassarche salvini</i>	Salvin's Albatross	Not Listed	Not Sensitive	Vulnerable	
Animalia	Aves	<i>Thinornis rubricollis</i>	Hooded Plover	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	<i>Tringa brevipes</i>	Grey-tailed Tattler	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Tringa incana</i>	Wandering Tattler	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	<i>Tringa nebularia</i>	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Tringa stagnatilis</i>	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Tyto novaehollandiae</i>	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Tyto tenebricosa</i>	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Mammalia	<i>Arctocephalus pusillus doriferus</i>	Australian Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Cercartetus nanus</i>	Eastern Pygmy-possum	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	<i>Dasyurus viverrinus</i>	Eastern Quoll	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	<i>Dugong dugon</i>	Dugong	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Megaptera novaeangliae</i>	Humpback Whale	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Miniopterus australis</i>	Little Bentwing-bat	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	<i>Miniopterus schreibersii oceanensis</i>	Eastern Bentwing-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Mormopterus norfolkensis</i>	Eastern Freetail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Myotis macropus</i>	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Petauroides volans</i>	Greater Glider	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Petaurus australis</i>	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Phascolarctos cinereus</i>	Koala	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Physeter macrocephalus</i>	Sperm Whale	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	<i>Caretta caretta</i>	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	<i>Chelonia mydas</i>	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Acacia baueri</i> subsp. <i>aspera</i>		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	<i>Acacia bynoeana</i>	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Arthropteris palisotii</i>	Lesser Creeping Fern	Endangered	Category 3	Not Listed	
Plantae	Flora	<i>Chorizema parviflorum</i>	Eastern Flame Pea	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	<i>Cynanchum elegans</i>	White-flowered Wax Plant	Endangered	Not Sensitive	Endangered	
Plantae	Flora	<i>Epacris purpurascens</i> subsp. <i>purpurascens</i>		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	<i>Eucalyptus largeana</i>	Craven Grey Box	Endangered	Not Sensitive	Endangered	
Plantae	Flora	<i>Eucalyptus scoparia</i>	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Gossia acmenoides</i>	Scrub Ironwood	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	<i>Macadamia integrifolia</i>	Macadamia Nut	Not Listed	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Persoonia glaucescens</i>	Mittagong Geebung	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Persoonia hirsuta</i>	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	<i>Persoonia nutans</i>	Nodding Geebung	Endangered	Not Sensitive	Endangered	
Plantae	Flora	<i>Pultenaea aristata</i>	Prickly Bush-pea	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Senna acclinis</i>	Rainforest Cassia	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	<i>Solanum celatum</i>		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Zieria granulata</i>	Illawarra Zieria	Endangered	Not Sensitive	Endangered	

Data does not include NSW category 1 sensitive species.

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Data obtained 19/07/2018

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Date: 19 Jul 2018 10:47:54

Reference: LS003868

Address: Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.

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Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a confidence is given under the field heading “LocConf” or “Location Confidence”.

Location Confidence	Description
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced with the confidence of the general/approximate area
Road Match	Georeferenced to the road or rail
Road Intersection	Georeferenced to the road intersection
Buffered Point	Feature is a buffered point
Network of Features	Georeferenced to a network of features

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	Dept. Finance, Services & Innovation	19/07/2018	19/07/2018	Daily	-	-	-	-
Topographic Data	Dept. Finance, Services & Innovation	09/04/2018	09/04/2018	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	06/07/2018	02/07/2018	Monthly	1000	0	0	2
Contaminated Land Records of Notice	Environment Protection Authority	06/07/2018	06/07/2018	Monthly	1000	0	0	2
Former Gasworks	Environment Protection Authority	04/07/2018	11/10/2017	Monthly	1000	0	0	0
National Waste Management Site Database	Geoscience Australia	04/07/2018	07/03/2017	Quarterly	1000	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority	04/07/2018	04/07/2018	Monthly	2000	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	11/01/2018	11/01/2018	Quarterly	1000	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	13/07/2018	13/07/2018	Monthly	1000	2	6	27
Delicensed POEO Activities still Regulated by the EPA	Environment Protection Authority	13/07/2018	13/07/2018	Monthly	1000	0	1	1
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	13/07/2018	13/07/2018	Monthly	1000	0	1	15
UPSS Environmentally Sensitive Zones	Environment Protection Authority	14/04/2015	12/01/2010	As required	1000	1	1	1
UBD Business Directory 1982 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1982 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1970 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1970 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1961 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1961 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1950 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1950 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500	0	0	0
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500	-	0	0
Points of Interest	Dept. Finance, Services & Innovation	09/04/2018	09/04/2018	Quarterly	1000	0	0	8
Tanks (Areas)	Dept. Finance, Services & Innovation	09/04/2018	09/04/2018	Quarterly	1000	0	0	0
Tanks (Points)	Dept. Finance, Services & Innovation	09/04/2018	09/04/2018	Quarterly	1000	0	0	2
Major Easements	Dept. Finance, Services & Innovation	09/04/2018	09/04/2018	As required	1000	0	1	1
State Forest	Dept. Finance, Services & Innovation	18/01/2018	18/01/2018	As required	1000	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	18/01/2018	30/09/2017	Annually	1000	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Botany Groundwater Management Zones	NSW Department of Primary Industries	15/03/2018	01/10/2005	As required	1000	0	0	0
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	21/03/2016	01/12/2015	Annually	2000	0	0	25
Geological Units 1:100,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	1	-	5
Geological Structures 1:100,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	0	-	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000	0	0	0
Soil Landscapes	NSW Office of Environment & Heritage	12/08/2014		None planned	1000	1	-	3
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	1	1	2
Standard Local Environmental Plan Acid Sulfate Soils	NSW Planning and Environment	07/10/2016	07/10/2016	As required	500	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	3
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000	0	0	0
Dryland Salinity Potential of Western Sydney	NSW Office of Environment & Heritage	12/05/2017	01/01/2002	None planned	1000	-	-	-
Mining Subsidence Districts	Dept. Finance, Services & Innovation	13/07/2017	01/07/2017	As required	1000	0	0	0
SEPP 14 - Coastal Wetlands	NSW Planning and Environment	17/12/2015	24/10/2008	Annually	1000	0	0	0
SEPP 26 - Littoral Rainforest	NSW Planning and Environment	17/12/2015	05/02/1988	Annually	1000	0	0	0
SEPP 71 - Coastal Protection	NSW Planning and Environment	17/12/2015	01/08/2003	Annually	1000	1	1	1
SEPP Major Developments 2005	NSW Planning and Environment	09/03/2013	25/05/2005	Under Review	1000	1	1	1
SEPP Strategic Land Use Areas	NSW Planning and Environment	01/08/2017	28/01/2014	Annually	1000	0	0	0
LEP - Land Zoning	NSW Planning and Environment	11/04/2018	16/03/2018	Quarterly	1000	0	0	4
LEP - Minimum Subdivision Lot Size	NSW Planning and Environment	04/04/2018	23/03/2018	Quarterly	0	0	-	-
LEP - Height of Building	NSW Planning and Environment	04/04/2018	23/03/2018	Quarterly	0	0	-	-
LEP - Floor Space Ratio	NSW Planning and Environment	04/04/2018	23/03/2018	Quarterly	0	0	-	-
LEP - Land Application	NSW Planning and Environment	04/04/2018	23/03/2018	Quarterly	0	0	-	-
LEP - Land Reservation Acquisition	NSW Planning and Environment	04/04/2018	09/03/2018	Quarterly	0	0	-	-
State Heritage Items	NSW Office of Environment & Heritage	04/04/2018	30/09/2016	Quarterly	1000	0	0	0
Local Heritage Items	NSW Planning and Environment	04/04/2018	23/03/2018	Quarterly	1000	0	0	0
Bush Fire Prone Land	NSW Rural Fire Service	10/05/2018	23/01/2018	Quarterly	1000	0	0	0
Native Vegetation of the Illawarra Escarpment & Coastal Plain	NSW Office of Environment & Heritage	20/05/2015	04/08/2011	Unknown	1000	0	0	9
RAMSAR Wetlands	Commonwealth of Australia Department of the Environment	08/10/2014	24/06/2011	As required	1000	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	2
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	6
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	16/07/2018	16/07/2018	Daily	10000	-	-	-

Aerial Imagery 2017

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Contaminated Land & Waste Management Facilities

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Contaminated Land & Waste Management Facilities

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist (m)	Direction
1474	Greenhouse Park	Springhill Road	Wollongong	Landfill	Regulation being finalised	Current EPA List	Premise Match	690m	North
1086	No 2 Steelworks	Five Islands Road	Port Kembla	Metal Industry	Regulation under CLM Act not required	Current EPA List	Premise Match	763m	South West

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Contaminated Land & Waste Management Facilities

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
387	Greenhouse Park	Springhill Road	Wollongong	1 current	3415	Premise Match	690m	North West
181	No 2 Steelworks	Five Islands Road	Port Kembla	4 former	3337	Premise Match	763m	South West

Contaminated Land Records of Notice Data Source: Environment Protection Authority

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Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit

<http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm>

Former Gasworks

Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist (m)	Direction
N/A	No records in buffer											

Waste Management Facilities Data Source: Geoscience Australia

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EPA PFAS Investigation Program

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Id	Site	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

EPA Other Sites with Contamination Issues

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

EPA Other Sites with Contamination Issues

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill

Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority

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Current EPA Licensed Activities

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



EPA Activities

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

Licensed Activities under the POEO Act 1997

Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
1625	PORT KEMBLA COAL TERMINAL LIMITED	PORT KEMBLA COAL TERMINAL LIMITED	PORT KEMBLA ROAD	WOLLONGONG	Coal works	Premise Match	0m	Onsite
1625	PORT KEMBLA COAL TERMINAL LIMITED	PORT KEMBLA COAL TERMINAL LIMITED	PORT KEMBLA ROAD	WOLLONGONG	Shipping in bulk	Premise Match	0m	Onsite
20532	Quattro P RE Services Pty Ltd		Tom Thumb Road, PORT KEMBLA, NSW 2505		Other activities	Premise Match	12m	South West
3578	AUSTRALIAN AMALGAMATED TERMINALS PTY LIMITED	AAT FACILITY	FARRER ROAD	PORT KEMBLA	Shipping in bulk	Premise Match	12m	South West
3142	AUSTRALIAN RAIL TRACK CORPORATION LIMITED		GPO BOX 14, SYDNEY, NSW 2001		Railway systems activities	Network of Features	72m	North West
13421	JOHN HOLLAND RAIL PTY LTD		PO Box 215 , PARRAMATTA, NSW 2124		Railway systems activities	Road Match	72m	North West
3693	GRAINCORP OPERATIONS LIMITED	PORT KEMBLA GRAIN TERMINAL	MORTON WAY	PORT KEMBLA	Shipping in bulk	Premise Match	161m	West
218	SYDNEY WATER CORPORATION	WOLLONGONG SEWAGE TREATMENT SYSTEM	PORT KEMBLA ROAD	WOLLONGONG	Sewage treatment processing by large plants	Premise Match	383m	North
3577	PORT KEMBLA OPERATIONS PTY LIMITED	BERTH 104	MORTON WAY	PORT KEMBLA	Shipping in bulk	Premise Match	409m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Agricultural fertiliser (inorganic) production	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Cement or lime handling	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Cement or lime production	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Coal works	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Coke production	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Crushing, grinding or separating	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Dangerous goods production	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	General chemicals storage	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Generation of electrical power from gas	Premise Match	762m	South West

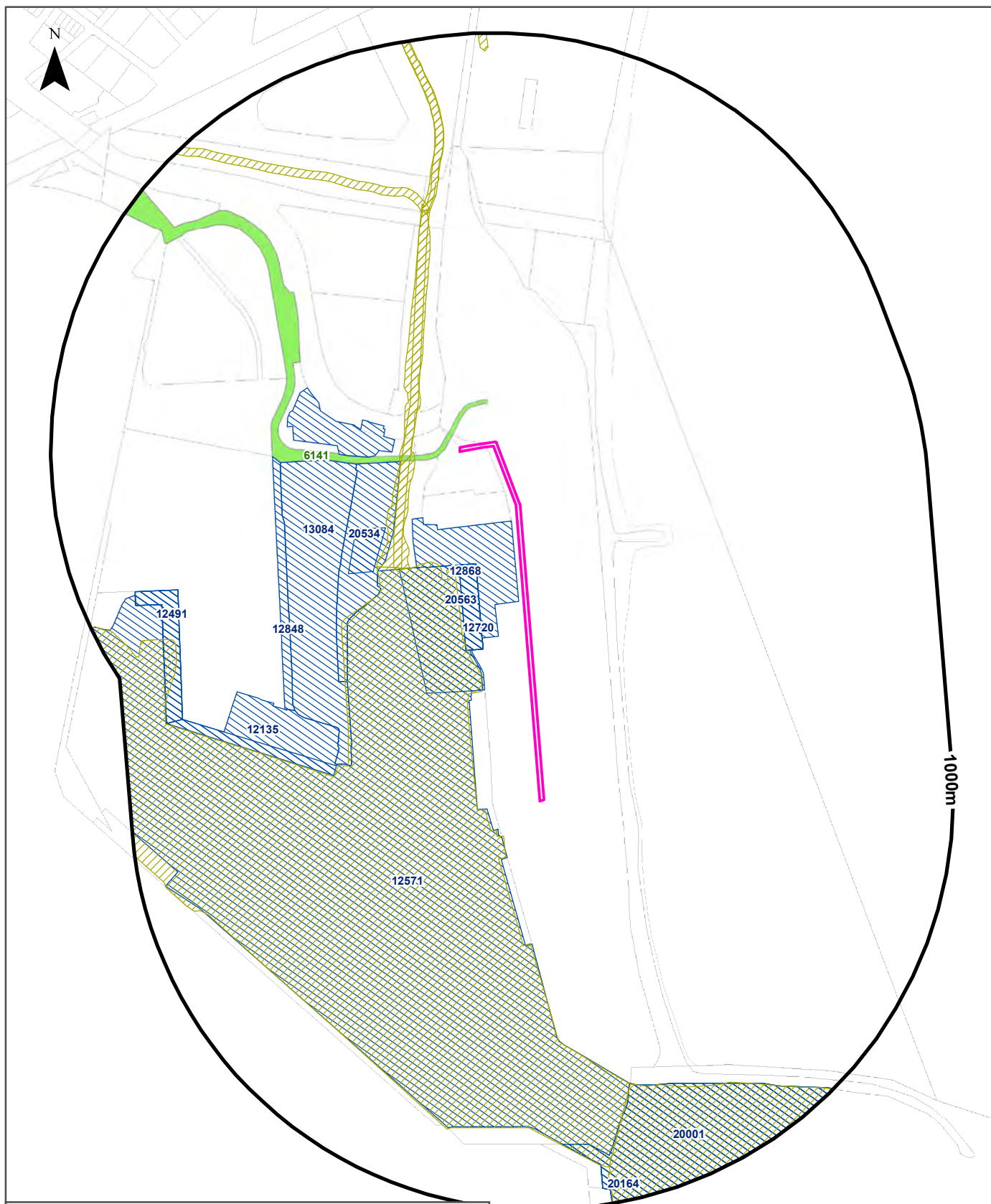
EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Iron or steel production (iron ore)	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Mineral processing	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Railway systems activities	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Recovery of general waste	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Recovery of waste tyres	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Scrap metal processing	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Shipping in bulk	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Waste storage - other types of waste	Premise Match	762m	South West
6092	BLUESCOPE STEEL (AIS) PTY. LTD.	PORT KEMBLA STEELWORKS	FIVE ISLANDS ROAD	PORT KEMBLA	Waste storage - waste tyres	Premise Match	762m	South West

POEO Licence Data Source: Environment Protection Authority

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Delicensed & Former Licensed EPA Activities

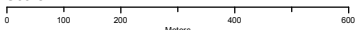
Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Legend

- █ Site Boundary
- █ Delicensed Activities still Regulated by EPA
- Report Buffer
- Former Licensed/Regulated Activities (revoked or surrendered)
- Property Boundary
- Surrendered Licences related to Other Activities on Waterways incl. Application of Herbicides

Scale:



Property Boundary Data Source:
© Department Finance, Services & Innovation 2018

Coordinate System:
GDA 1994 MGA Zone 56

Date: 19 July 2018

EPA Activities

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
6141	PACIFIC NATIONAL (NSW) PTY LTD	ILLAWARRA BULK TERMINAL	TOM THUMB ROAD	PORT KEMBLA	Hazardous, Industrial or Group A Waste Generation or Storage	Road Match	31m	North West

Delicensed Activities Data Source: Environment Protection Authority
 © State of New South Wales through the Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
20534	WATERWAY CONSTRUCTION S PTY LTD	, Inner Harbour, PORT KEMBLA, NSW 2505,	Surrendered	20/11/2014	Other activities	Premise Match	12m	North West
12571	BOSKALIS AUSTRALIA PTY LIMITED	Five Islands Road, PORT KEMBLA, NSW 0	Surrendered	30/01/2007	Water-based extractive activity	General Area/ Suburb Match	108m	South
12720	GEORGIU GROUP PTY LTD	Tom Thumb Road, PORT KEMBLA, NSW 2505	Surrendered	05/07/2007	Water-based extractive activity	Premise Match	108m	West
20563	BOSKALIS AUSTRALIA PTY LIMITED	, Tom Thumb Road, PORT KEMBLA, NSW 2505,	Surrendered	07/04/2015	Water-based extractive activity	Premise Match	108m	West
12868	MAINLAND CIVIL PTY LIMITED	FORESHORE ROAD, PORT KEMBLA, NSW 2505	Surrendered	14/03/2008	Miscellaneous licensed discharge to waters (at any time)	Premise Match	108m	West
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	112m	-
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	112m	-
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	112m	-
13084	DONNELLEY CIVIL PTY LIMITED	Morton Way and Tom Thumb Road, PORT KEMBLA, NSW 2505	Surrendered	05/05/2009	Other activities	Premise Match	161m	West
12848	WATERWAY CONSTRUCTION S PTY LTD	FARRER ROAD, PORT KEMBLA, NSW 2505	Surrendered	01/02/2008	Miscellaneous licensed discharge to waters (at any time)	Road Match	440m	West
12135	AUSTRAL CONSTRUCTION PTY. LTD.	Farrer Road, PORT KEMBLA, NSW 2505	Surrendered	26/05/2004	Coal Washery Reject or Slag Landfilling	Premise Match	475m	West

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
20001	CLEARY BROS (BOMBO) PTY LTD	Off Christy Drive, PORT KEMBLA, NSW 2505	Surrendered	22/08/2011	Other activities	General Area/ Suburb Match	723m	South
20164	PORT KEMBLA PORT CORPORATION	Christy Drive, PORT KEMBLA, NSW 2505	Surrendered	09/08/2012	Waste storage - other types of waste	General Area/ Suburb Match	723m	South
12491	GEORGIU GROUP PTY LTD	Products Berth Road, PORT KEMBLA, NSW 2505	Surrendered	23/05/2006	Coal Washery Reject or Slag Landfilling	Premise Match	768m	West
12491	GEORGIU GROUP PTY LTD	Products Berth Road, PORT KEMBLA, NSW 2505	Surrendered	23/05/2006	Land-based extractive activity	Premise Match	768m	West

Former Licensed Activities Data Source: Environment Protection Authority
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UPSS Sensitive Zones

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Historical Business Directories

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

1982 Business Directory Records Premise or Road Intersection Matches

Records from the 1982 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1982 Business Directory Records Road or Area Matches

Records from the 1982 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer			

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

1970 Business Directory Records Premise or Road Intersection Matches

Records from the 1970 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1970 Business Directory Records Road or Area Matches

Records from the 1970 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer			

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

1961 Business Directory Records Premise or Road Intersection Matches

Records from the 1961 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1961 Business Directory Records Road or Area Matches

Records from the 1961 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer			

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

1950 Business Directory Records Premise or Road Intersection Matches

Records from the 1950 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1950 Business Directory Records Road or Area Matches

Records from the 1950 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer			

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer					

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Aerial Imagery 2016

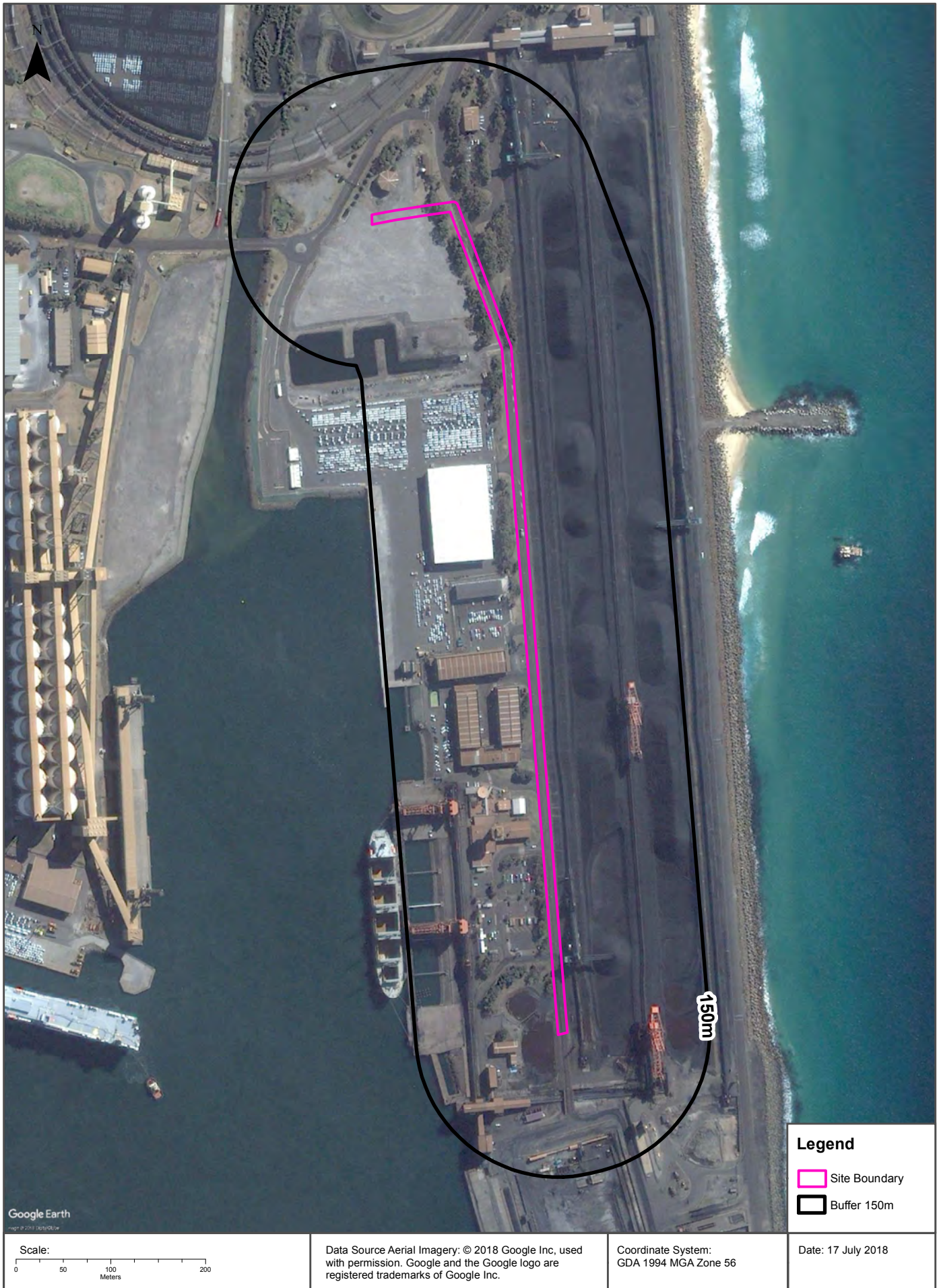
Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Scale: 0 50 100 200 Meters	Data Sources: Aerial Imagery © Department Finance, Services & Innovation	Coordinate System: GDA 1994 MGA Zone 56	Date: 18 July 2018
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Aerial Imagery 2013

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Google Earth
map © 2013 Mapbox

Scale:
0 50 100 200
Meters

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Coordinate System:
GDA 1994 MGA Zone 56

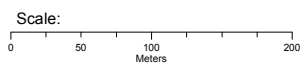
Date: 17 July 2018

Aerial Imagery 2008

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Google Earth
15/07/2018



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GDA 1994 MGA Zone 56

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Aerial Imagery 2002

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Scale: 0 50 100 200 Meters

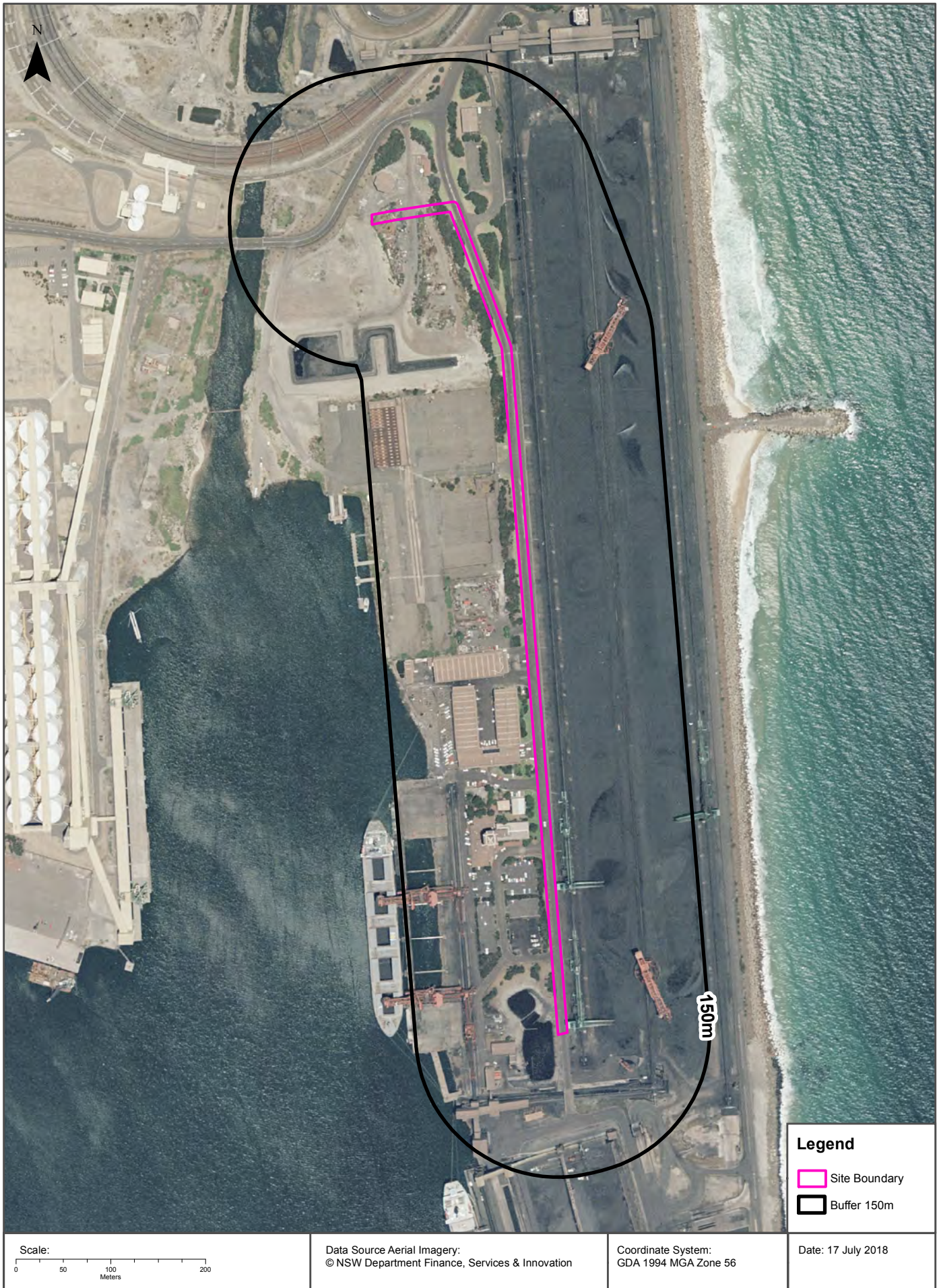
Data Source Aerial Imagery: © NSW Department Finance, Services & Innovation

Coordinate System: GDA 1994 MGA Zone 56

Date: 20 July 2018

Aerial Imagery 1994

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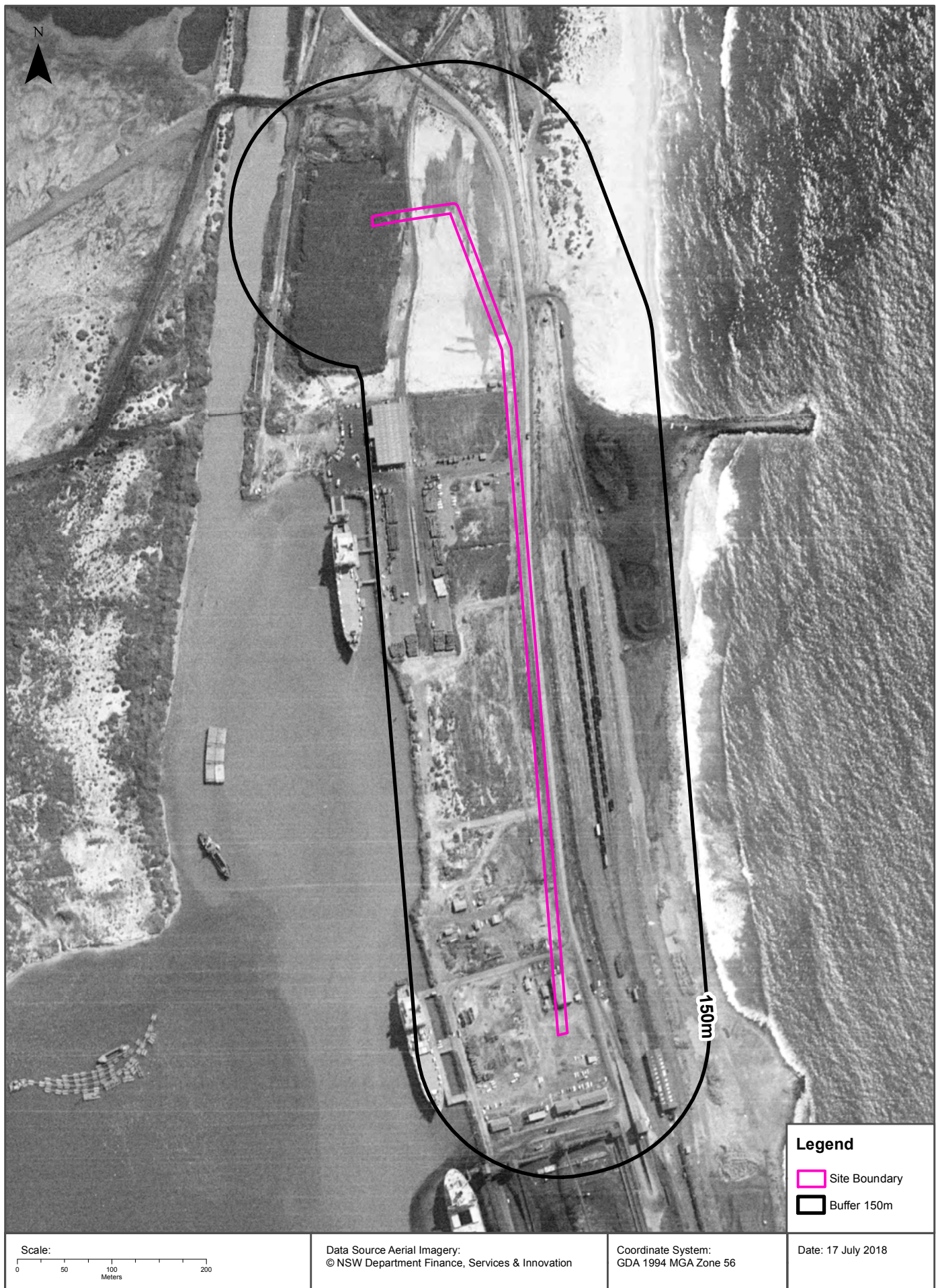
Aerial Imagery 1984

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Aerial Imagery 1975

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



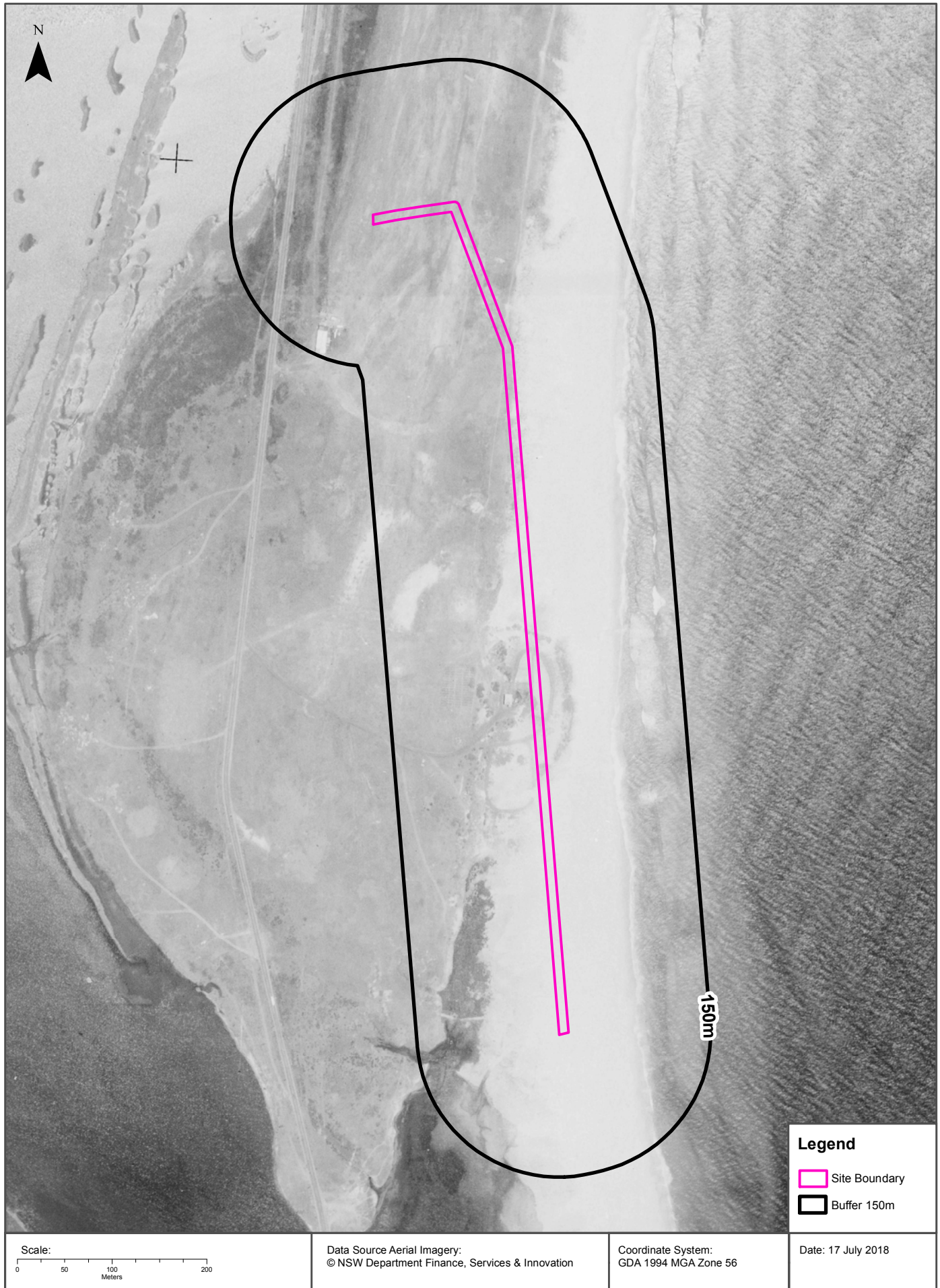
Aerial Imagery 1961

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



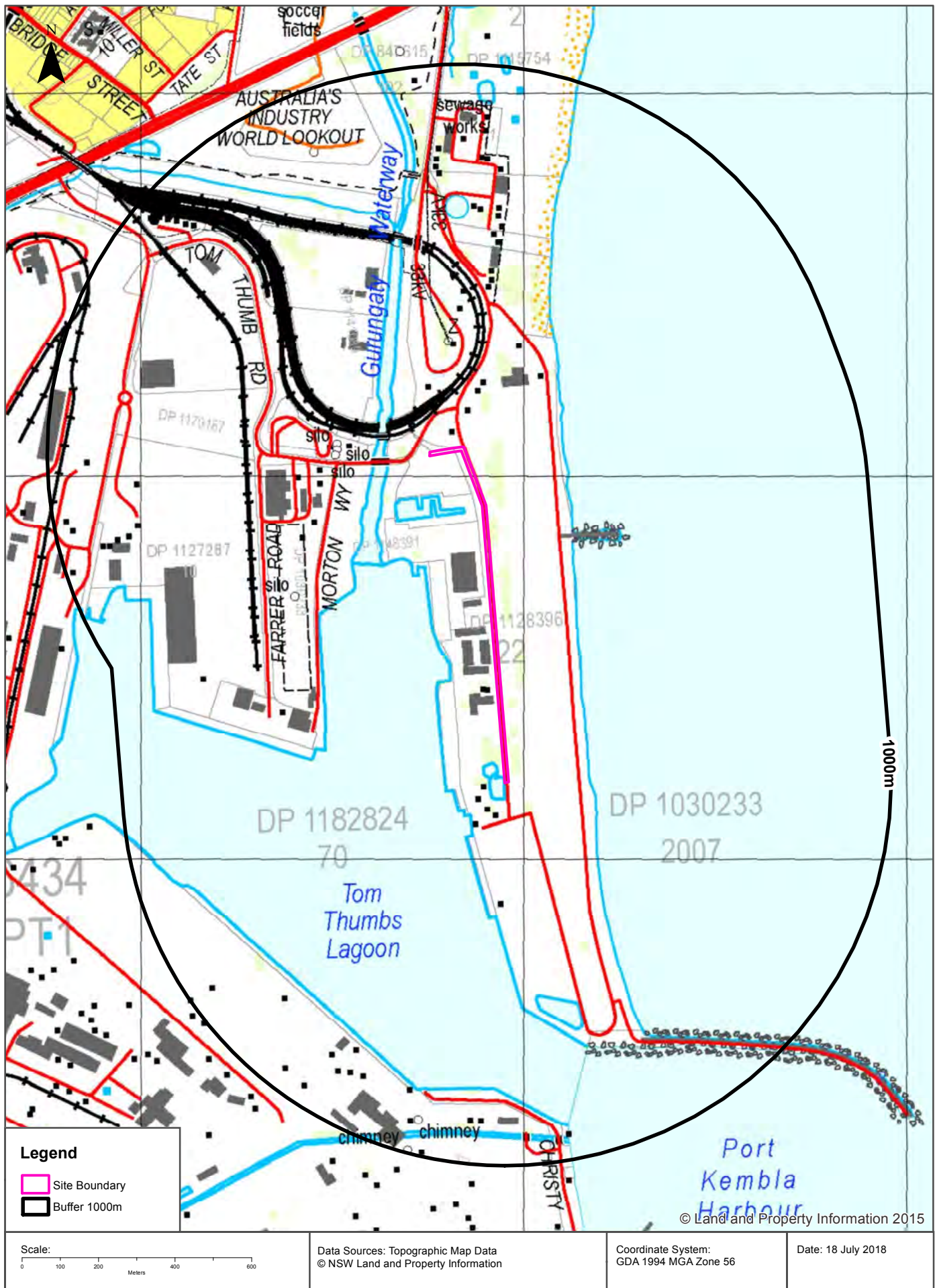
Aerial Imagery 1951

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Topographic Map 2015

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)



Historical Map 1998

Proposed Gas Pipeline & Berth 101, Port Kembla, NSW 2505 (Section 5)

