



# LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

**Address: Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810  
(Section 7)**

**Date: 12 Nov 2018 15:05:15**

**Reference: LS004576 EP**

**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. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

## Table of Contents

Location Confidences.....	2
Dataset Listings .....	3
Site Location Aerial .....	5
Topographic Features.....	6
Elevation Contours.....	7
EPA Records.....	8
Waste Management Facilities .....	15
Former Gasworks.....	17
Historical Business Activities.....	18
Historical Aerial Imagery & Maps .....	24
Features of Interest .....	43
Hydrogeology & Groundwater .....	45
Groundwater Boreholes .....	47
Historical Mining Activity .....	54
Geology .....	55
Soil Types.....	58
Acid Sulfate Soils .....	62
Planning Zones .....	66
Planning Overlays .....	68
Heritage.....	70
Natural Hazards .....	73
Ecological Constraints.....	76
Terms & Conditions.....	82

## 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

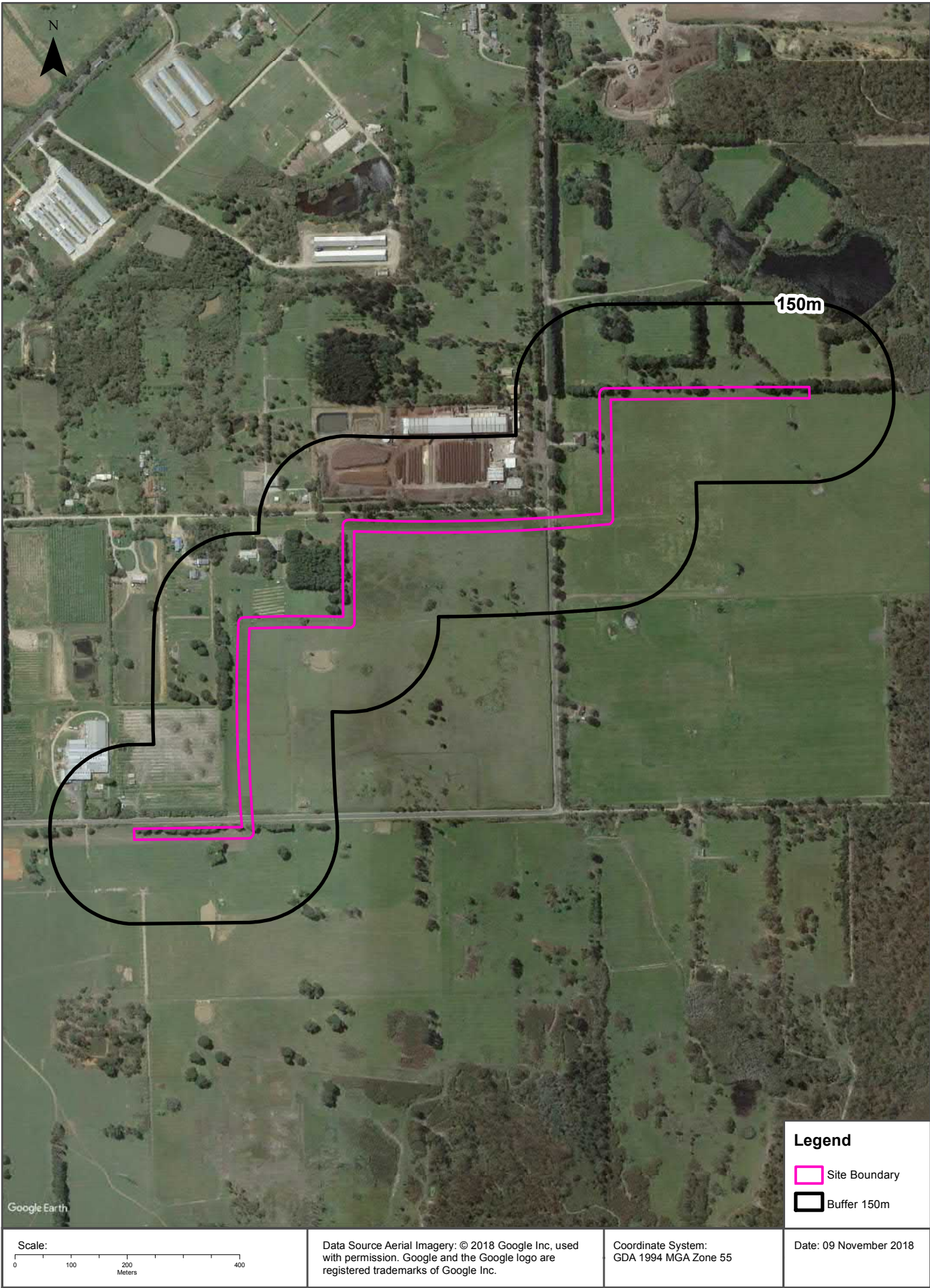
Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	08/10/2018	08/10/2018	Quarterly	-	-	-	-
Current Priority Sites	Environment Protection Authority (Vic)	17/10/2018	31/08/2018	Monthly	1000	0	0	1
Former Priority Sites & other Pollution Notices	Environment Protection Authority (Vic)	19/10/2018	19/10/2018	Monthly	1000	0	1	3
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	1
Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	19/09/2018	Monthly	1000	0	0	2
Former Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	1
Works Approvals	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	06/11/2018	07/03/2017	Quarterly	1000	0	0	1
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000	0	0	3
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	23/10/2018	23/10/2018	Quarterly	1000	0	0	0
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	06/09/2018	06/09/2018	Quarterly	1000	0	0	1
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000	0	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 1960-62 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1960-62 (Road & Area Matches)	Hardie Grant			Not required	150	-	2	2
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
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	1	1	14
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	2	-	-
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	30/10/2018	01/10/2018	Quarterly	2000	0	0	39
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	27/07/2018	17/02/2010	As required	2000	0	0	6
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	18/10/2018	20/07/2018	As required	1000	0	0	0
Geological Units 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	1	-	4
Geological Structures 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	1	1	1
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000	1	1	3
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000	0	0	1
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	1	1	5
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	0	2	2
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	0	0
Cultural Heritage Sensitivity	State Government Victoria - Department of Planning and Community Development	12/10/2018	12/10/2018	Quarterly	1000	1	1	6
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	12/10/2018	16/05/2018	Quarterly	1000	1	1	1
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	28/06/2018	Quarterly	1000	0	0	0
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	18/11/2014	Quarterly	1000	0	0	0
Victorian Coastal Inundation Sea Level Rise	Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000	0	0	8
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000	2	2	5
RAMSAR Wetlands	State Government Victoria - Department of Environment, Land, Water & Planning	28/03/2017	24/06/2013	None planned	1000	0	0	1
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	2	2	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	3	4	6

# Aerial Imagery 2017

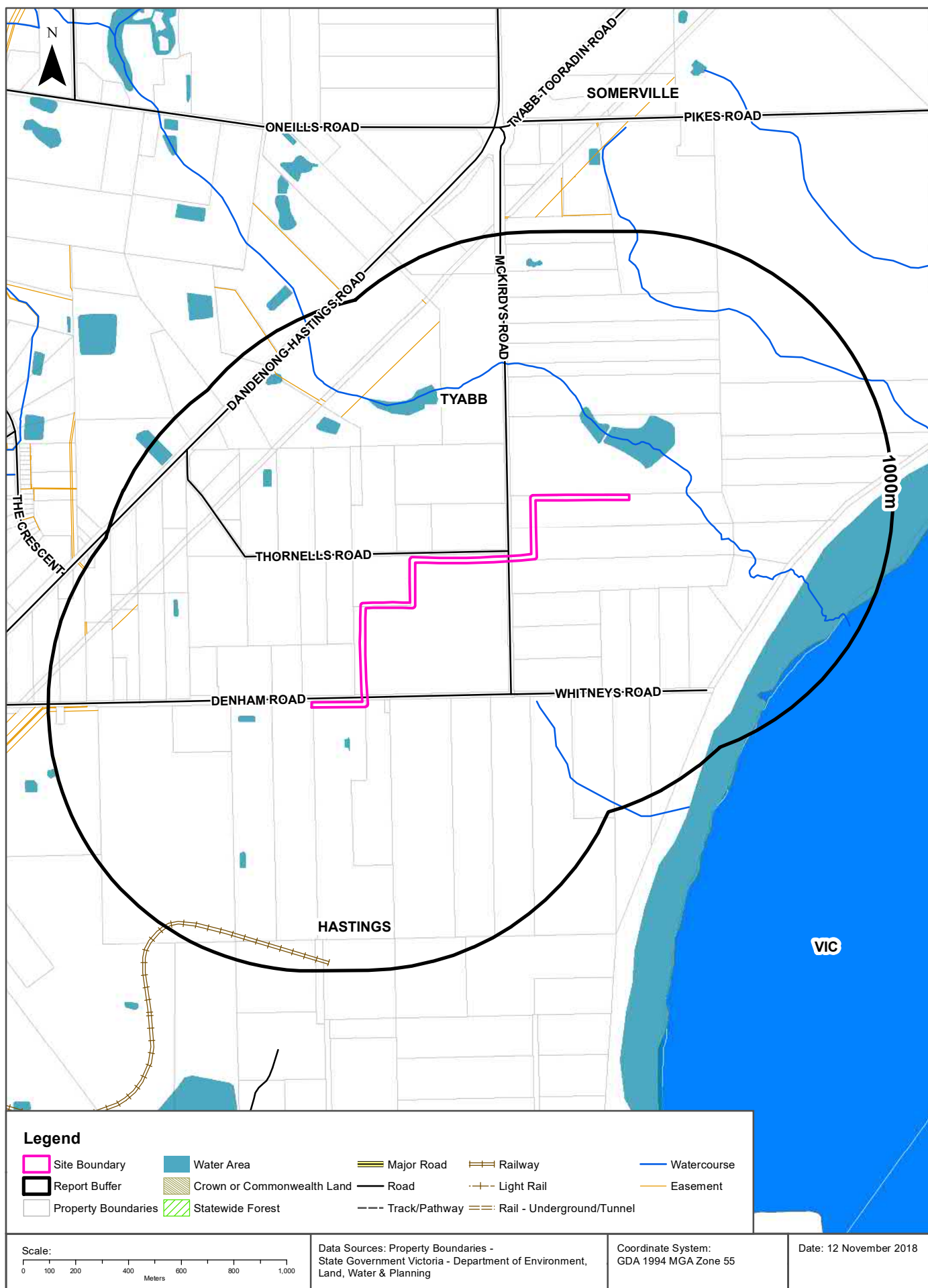
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)





# Topographic Data

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



Elevation Contours (m AHD) 10m Interval at 1:25,000  
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



# EPA Records - Priority Sites & Pollution Notices

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
90007677	15-21 MCKIRDYS RD	TYABB	Former Landfill. Requires ongoing management.	Premise Match	452m	North East

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

**Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.**

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
90008213	Minor Works PAN	AUSTRALIAN GROWING SOLUTIONS PTY LTD	12 MCKIRDYS RD TYABB VIC 3913	TYABB	Previous Pollution Notice		20/10/2017	Premise Match	26m	North
90008880	Monitoring, Rehab' & Aftercare PAN	MORNINGTON PENINSULA SHIRE COUNCIL [TYABB]	15-21 MCKIRDYS RD / TYABB VIC 3913	TYABB	Current Pollution Notice		13/07/2018	Premise Match	452m	North East
90007505	Monitoring, Rehab' & Aftercare PAN	MORNINGTON PENINSULA SHIRE COUNCIL [TYABB]	15-21 MCKIRDYS RD	TYABB	Current Pollution Notice		07/06/2018	Premise Match	452m	North

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

EPA Records - Audit Reports & GQRUZ

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)





## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Loc Conf	Distance	Direction
64917-4	8005111	15-21 MCKIRDYS RD, TYABB VIC 3913 15- 21 MCKIRDYS RD	15-21 MCKIRDYS RD, TYABB VIC 3913 15-21 MCKIRDYS RD, TYABB	TYABB	11/01/2017	Premise Match	452m	North East

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Loc Conf	Distance	Direction
N/A	No records in buffer						

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

# EPA Records - Licensed Activities & Works Approvals

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## EPA Records

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
3033240	74219	Amalgamated licence	MORNINGTON PENINSULA SHIRE COUNCIL	70422	15-21 MCKIRDYS RD	TYABB VIC 3913	A05 Landfills; A07 Composting	Premise Match	452m	North East
3032961	10818	Licence	BLUESCOPE STEEL LIMITED [HASTINGS]		28 BAYVIEW RD	HASTINGS	L01 General Emissions to Air	Premise Match	782m	South

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
EM20933#9	BLUESCOPE STEEL LIMITED [HASTINGS]	28 Bayview Rd	HASTINGS VIC 3915	L01 General Emissions to Air	Premise Match	782m	South

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

## EPA Works Approvals

EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
N/A	No records in buffer								

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### 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
1196	Mornington Peninsula Shire Council	Municipal Tip	19 McKirdys Road	Hastings	Landfill	Operational				Premise Match	452m	North East

Waste Management Facilities Data Source: Australian Government Geoscience Australia

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### Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
437	Mornington Peninsula Shire Council	Tyabb Landfill - ES469	19 McKirdy's rd	Hastings	Landfill	Putrescible Landfill	Premise Match	452m	North East
508	Mornington Peninsula Shire Council	Tyabb Transfer Station	21 McKirdys Rd	Tyabb East	Municipal Waste	MSW Transfer station	Premise Match	452m	North East
512	Mornington Peninsula Shire Council	Mornington Peninsula Shire Council	19 McKirdy's rd	Tyabb	Organics	Garden Waste	Premise Match	452m	North East

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

### EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste sites within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist' (m)	Direct
N/A	No records in buffer									

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

### EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist' (m)	Direction
10726	MORNINGTON PENINSULA SHIRE COUNCIL	15-21 MCKIRDYS RD TYABB VIC 3913	Closed			As Supplied	456m	North East

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

## Former Gasworks

**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)**

### Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:

Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources

## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### 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:

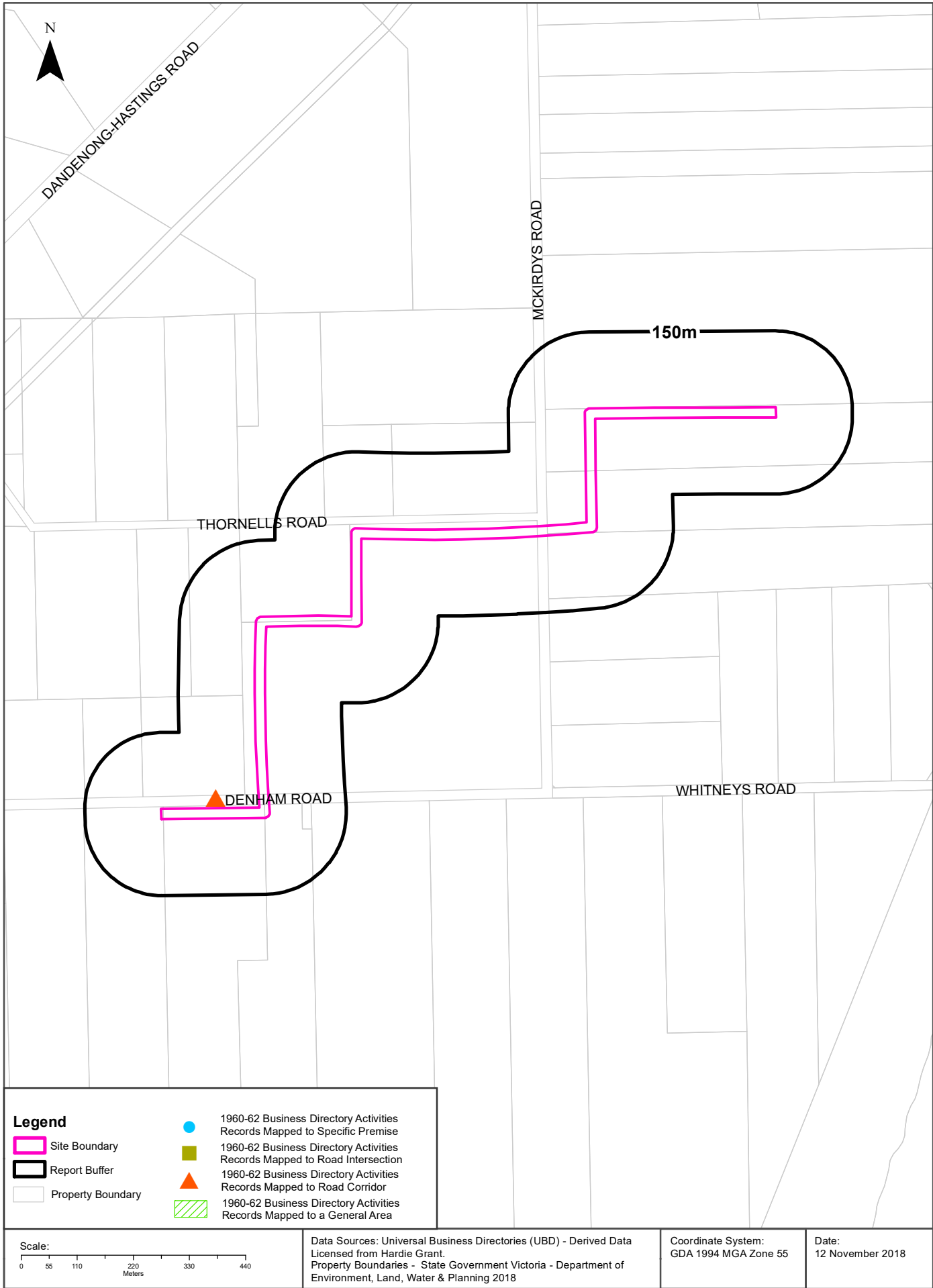
Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer			

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



# 1960-62 Historical Business Directory Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### 1960-62 Business Directory Records Premise or Road Intersection Matches

Records from the 1960-62 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Directory	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

### 1960-62 Business Directory Records Road or Area Matches

Records from the 1960-62 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.	Directory	Location Confidence	Distance to Road Corridor or Area
SEEDSMEN & NURSERYMEN	Fairfield Nurseries (J. D. Grant & Son) Denham Rd., Tyabb	132232	East Victoria 1961-62	Road Match	0m
SEEDSMEN & NURSERYMEN	Hastings Nursery & Garden Supply, Denham Rd., Tyabb	132234	East Victoria 1961-62	Road Match	0m

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

## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### 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:

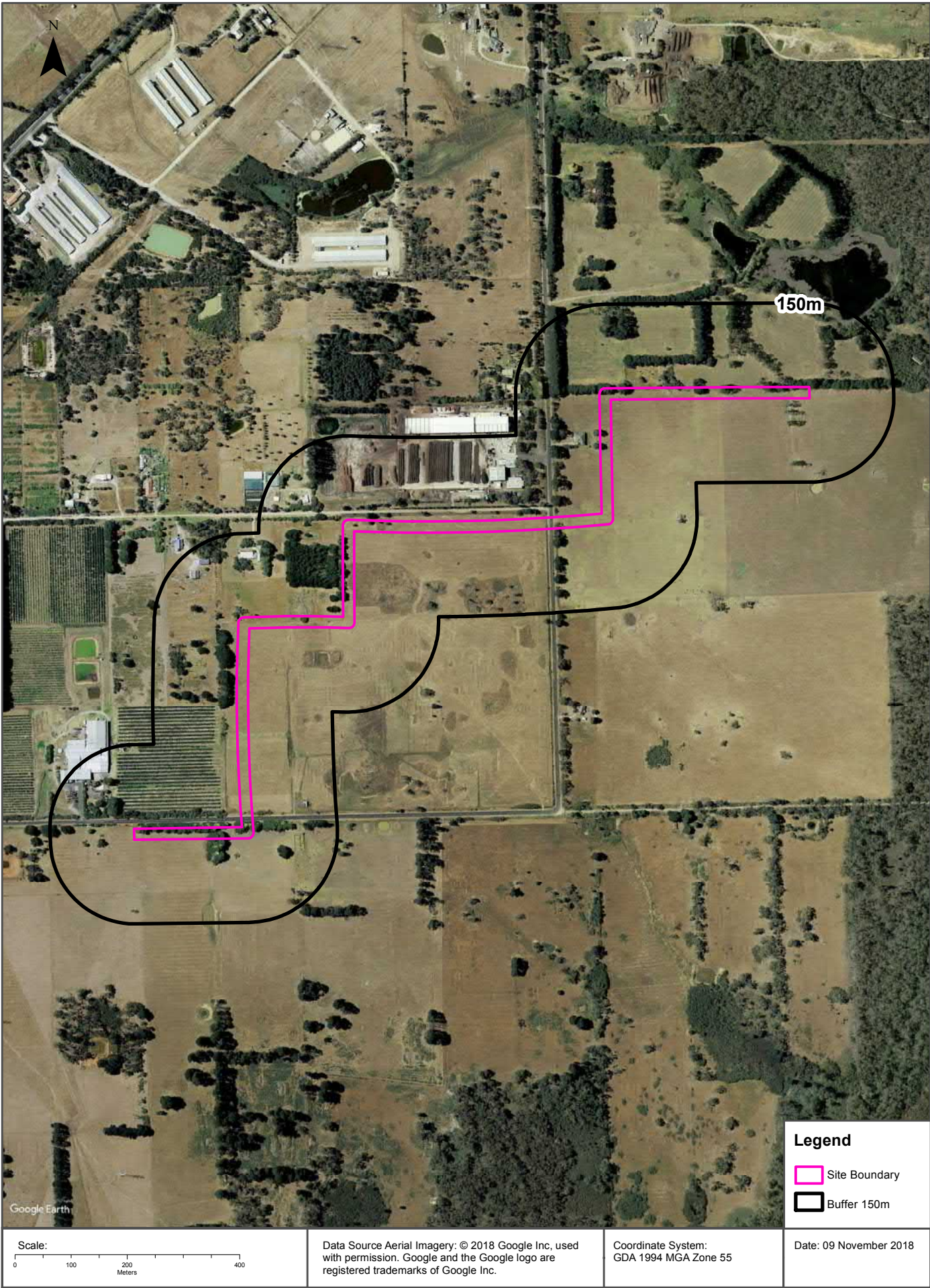
Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer				

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



Aerial Imagery 2009

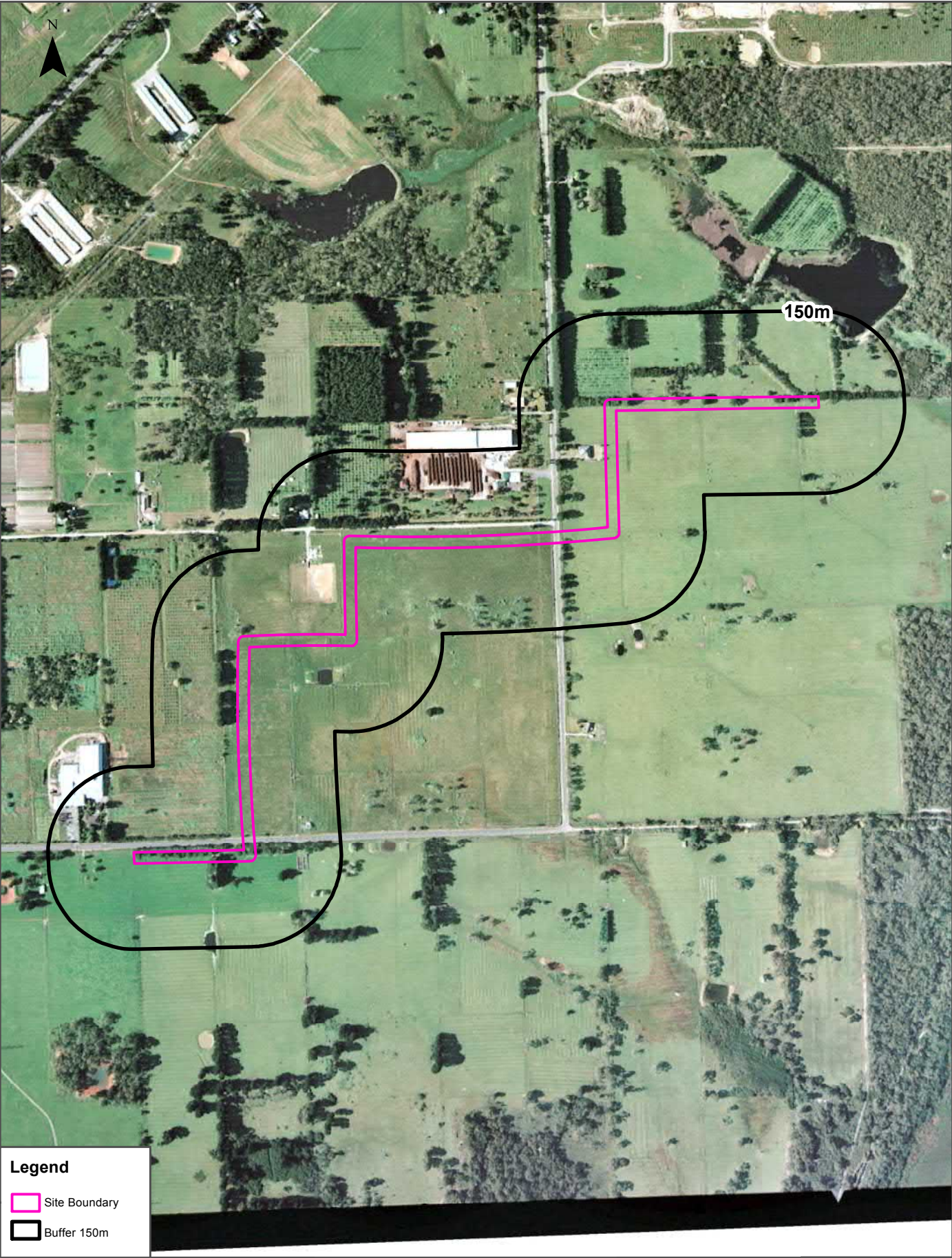
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)





# Aerial Imagery 1989

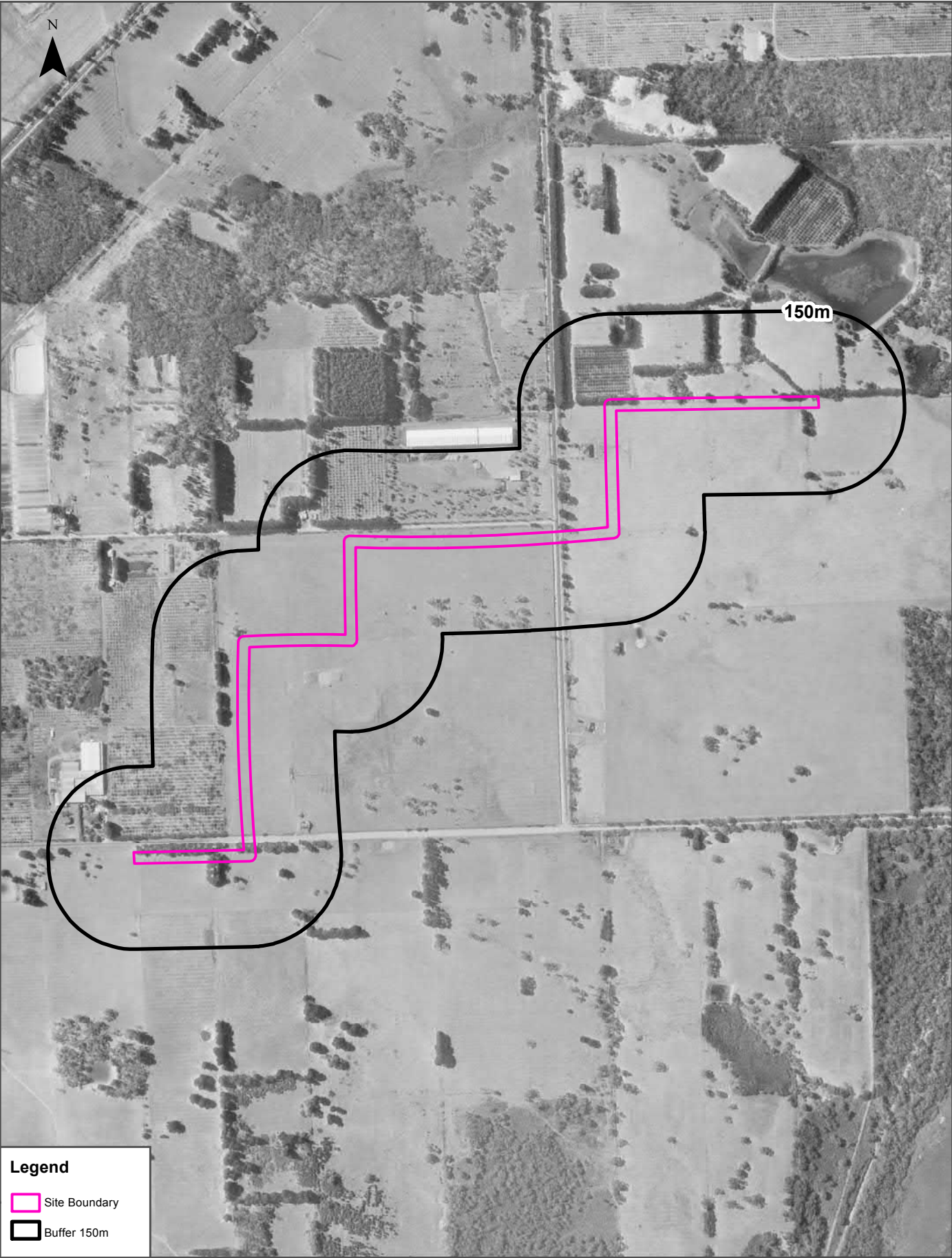
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)






# Aerial Imagery 1985

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Legend

-  Site Boundary
-  Buffer 150m

Scale:  
0 100 200 400  
Meters

Data Source Aerial Imagery:  
© Department of Environment, Land, Water and Planning  
(Vicmap Topographic Mapping Program)

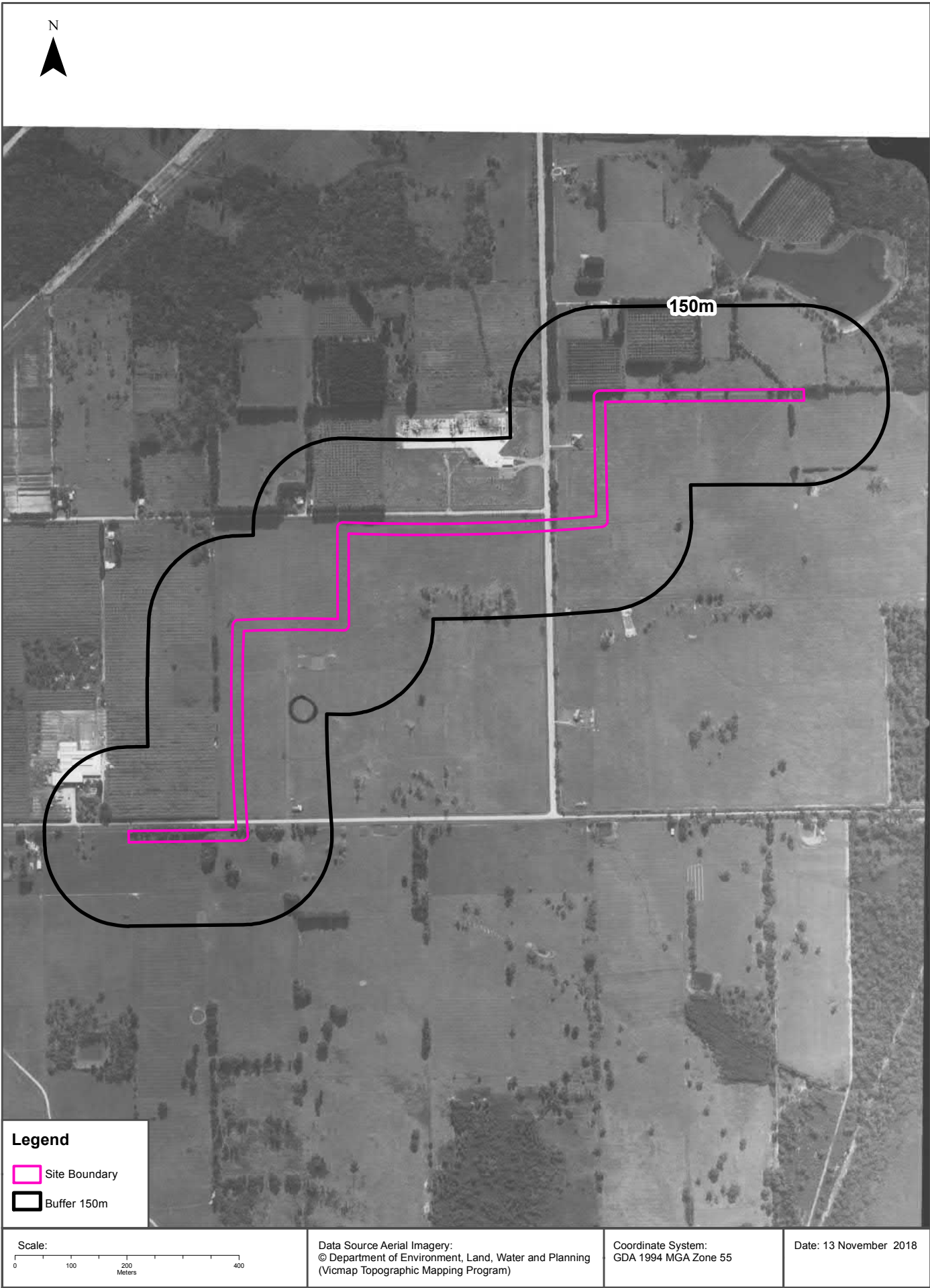
Coordinate System:  
GDA 1994 MGA Zone 55

Date: 09 November 2018



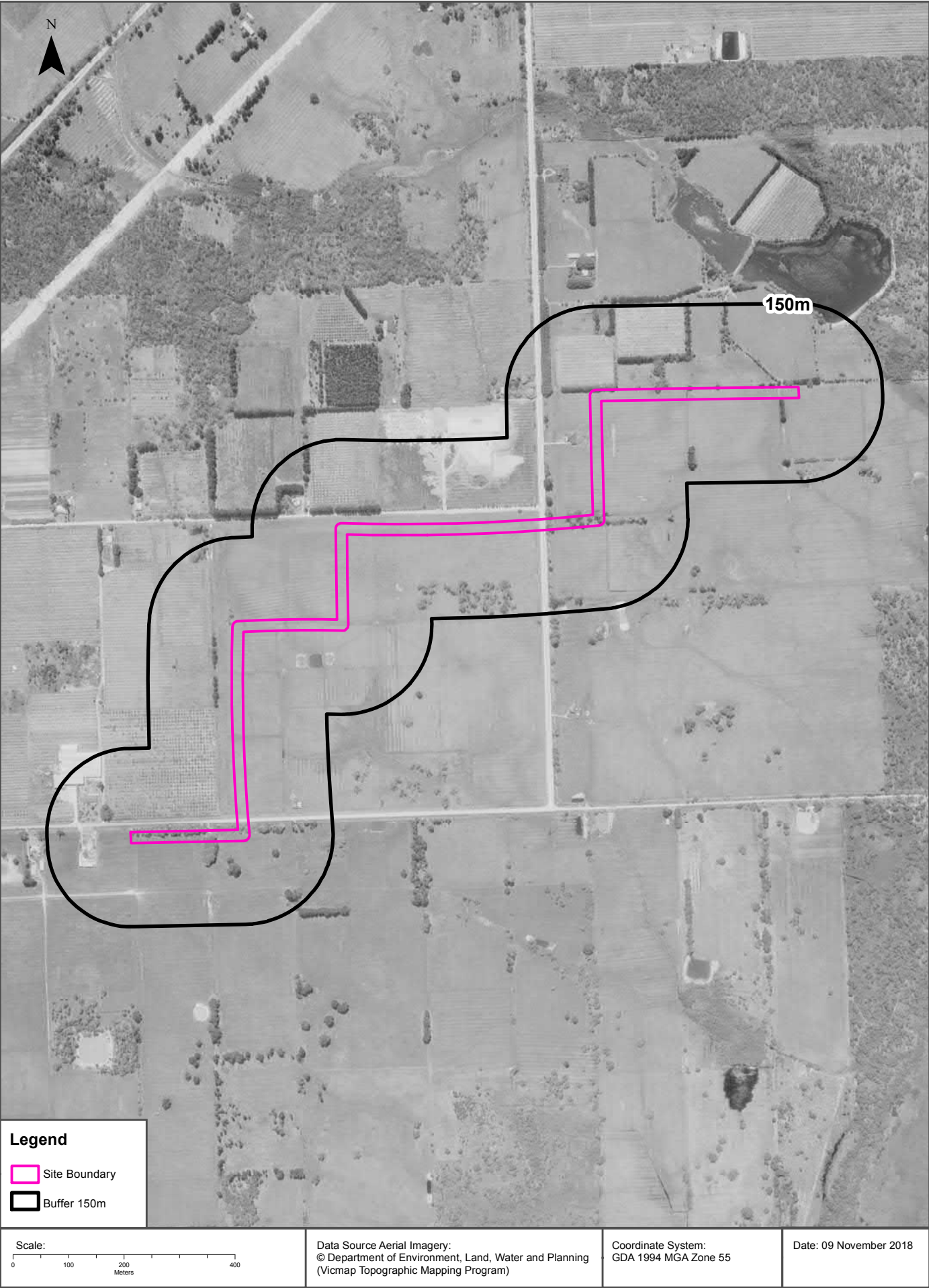
# Aerial Imagery 1978

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



# Aerial Imagery 1974

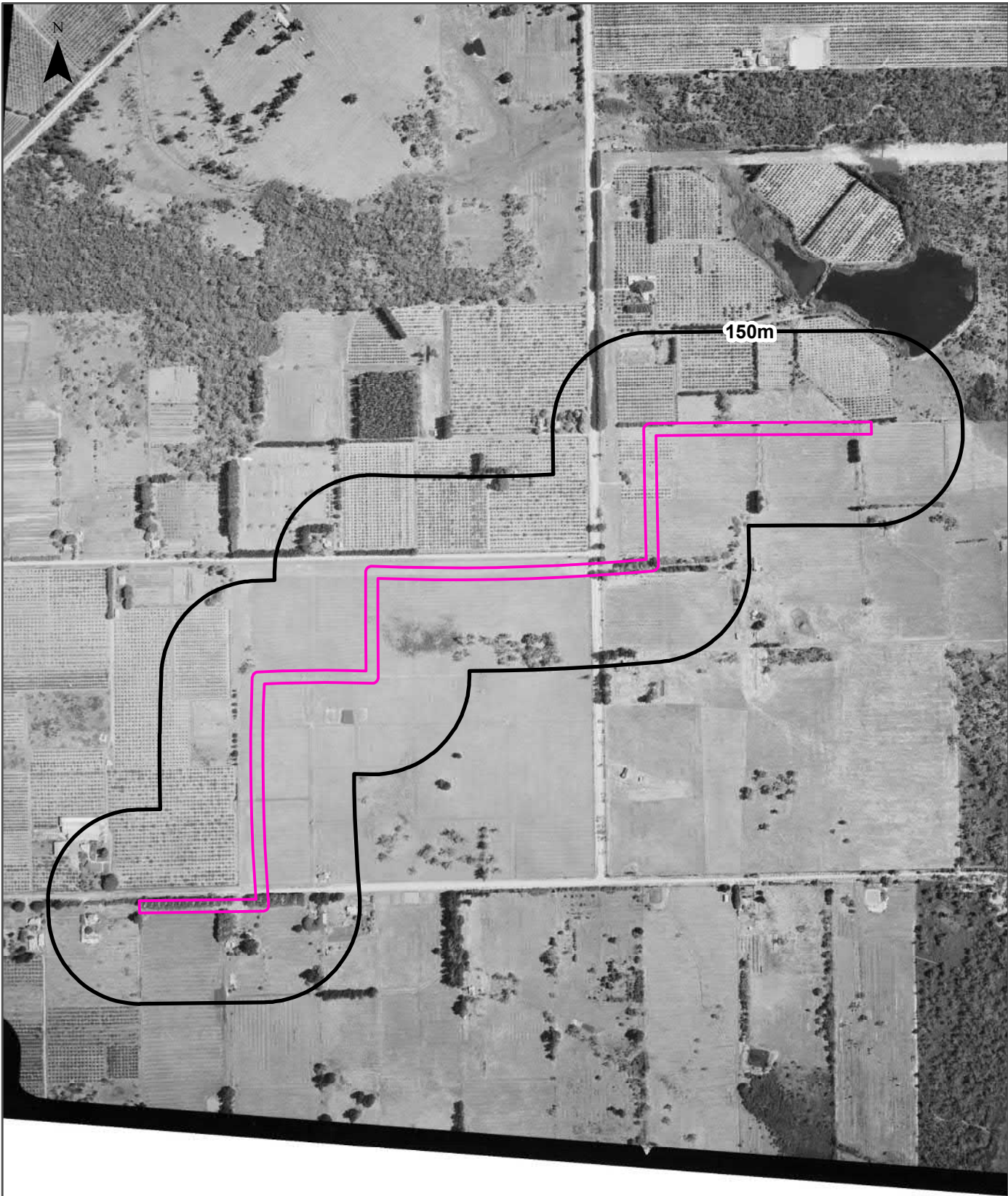
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)







# Aerial Imagery 1970

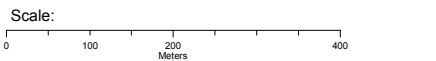
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



**Legend**

 Site Boundary

 Buffer 150m



Data Source Aerial Imagery:  
© Department of Environment, Land, Water and Planning  
(Vicmap Topographic Mapping Program)

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 13 November 2018





## Aerial Imagery 1957

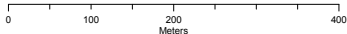
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



### Legend

-  Site Boundary
-  Buffer 150m

Scale:



Data Source Aerial Imagery:  
© Department of Environment, Land, Water and Planning  
(Vicmap Topographic Mapping Program)

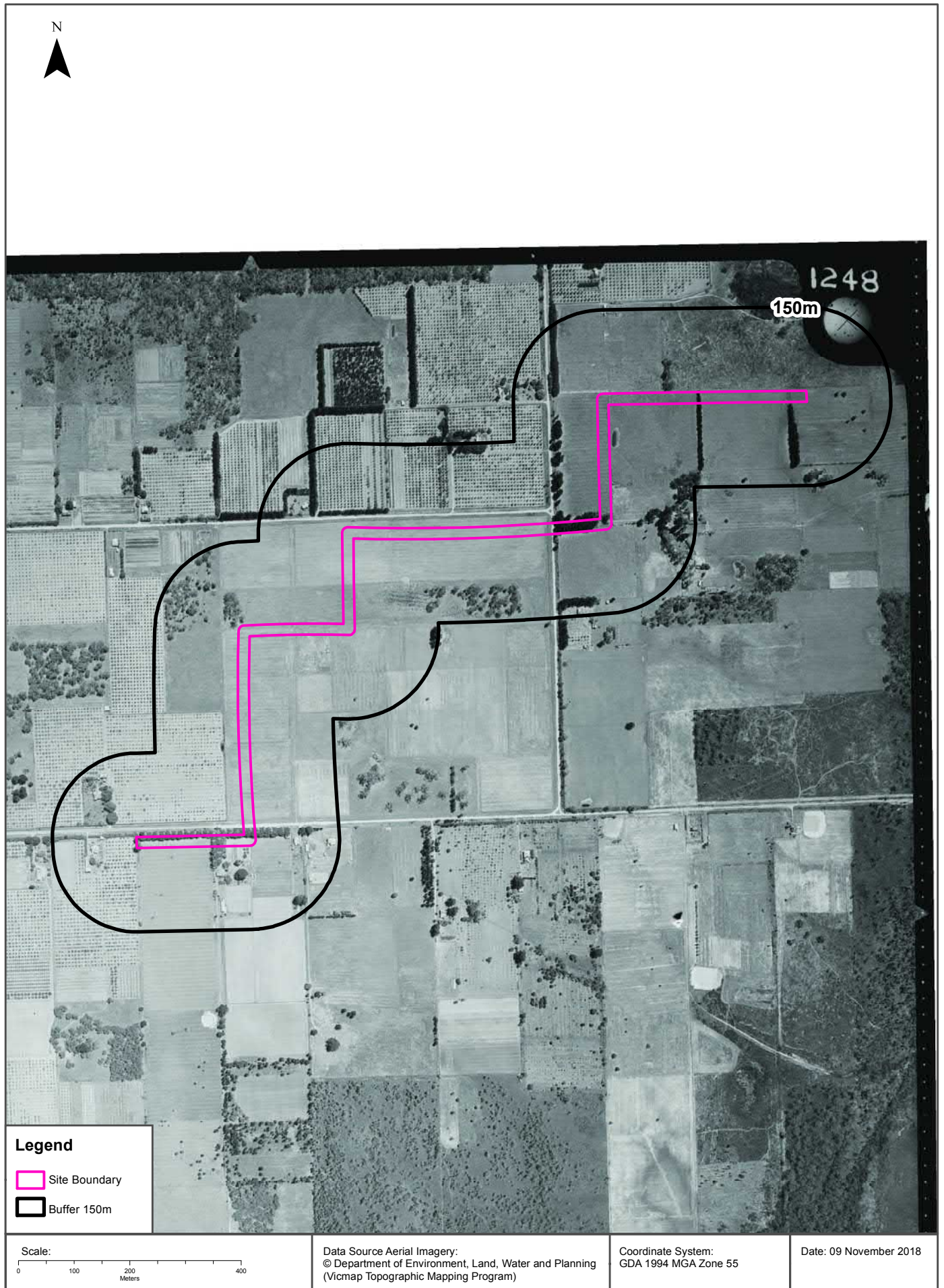
Coordinate System:  
GDA 1994 MGA Zone 55

Date: 09 November 2018



# Aerial Imagery 1957

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



Historical Map 2009

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

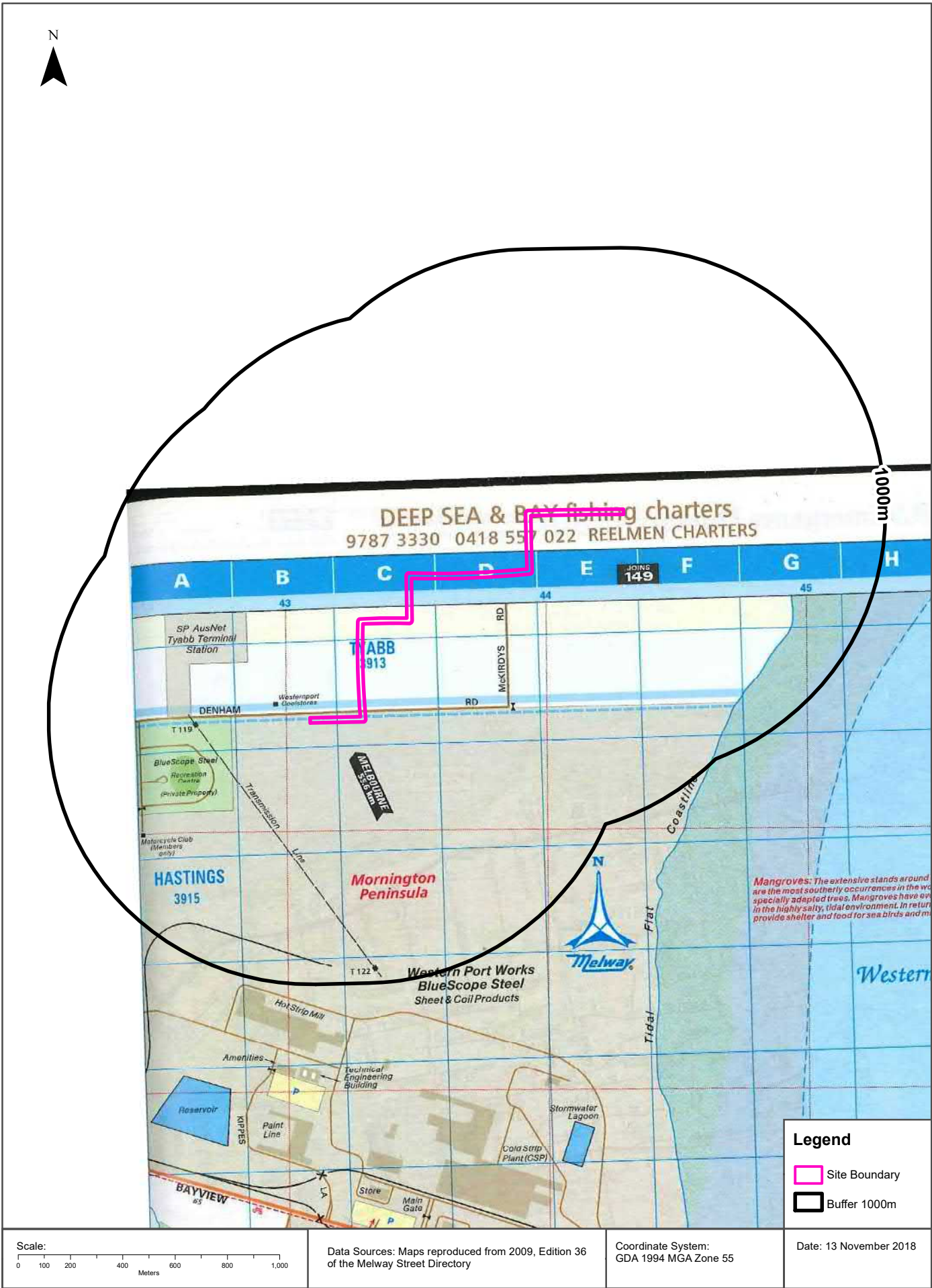


<p>Scale:</p> <p>0 100 200 400 600 800 1,000</p> <p>Meters</p>	<p>Data Sources: Maps reproduced from 2009, Edition 36 of the Melway Street Directory</p>	<p>Coordinate System: GDA 1994 MGA Zone 55</p>	<p><b>Legend</b></p> <p>Site Boundary</p> <p>Buffer 1000m</p> <p>Date: 13 November 2018</p>
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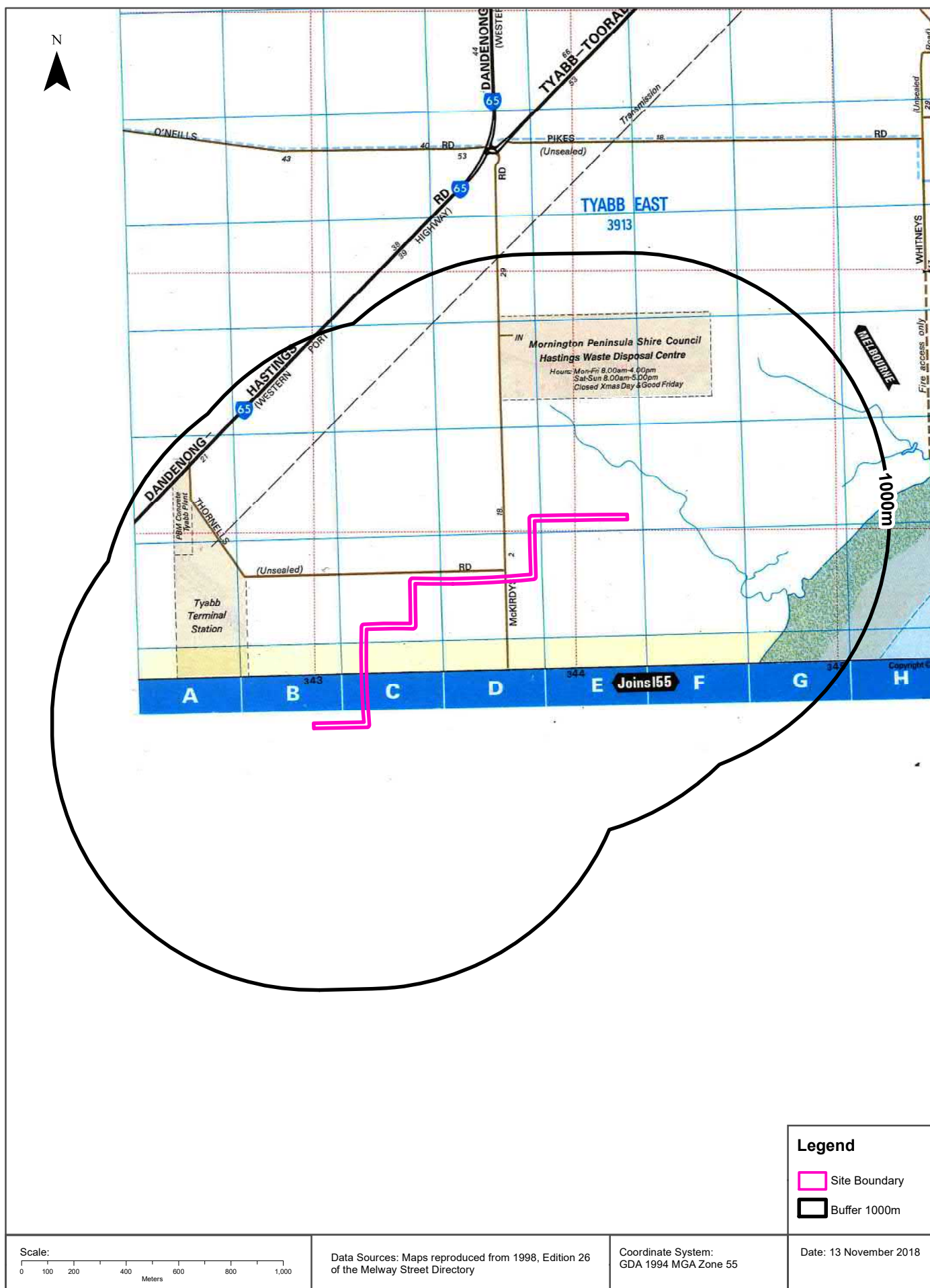


Historical Map 2009

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



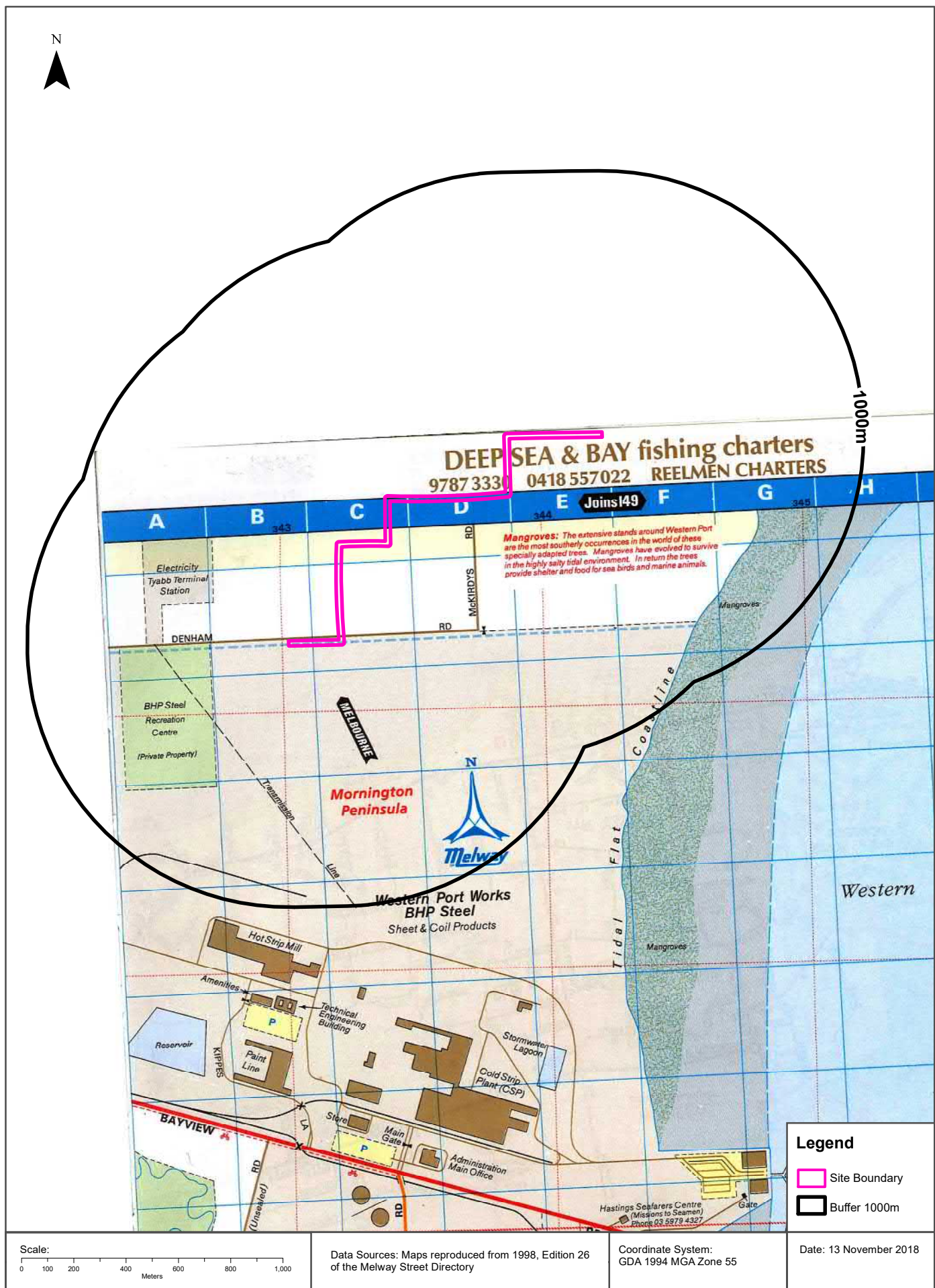
**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)**





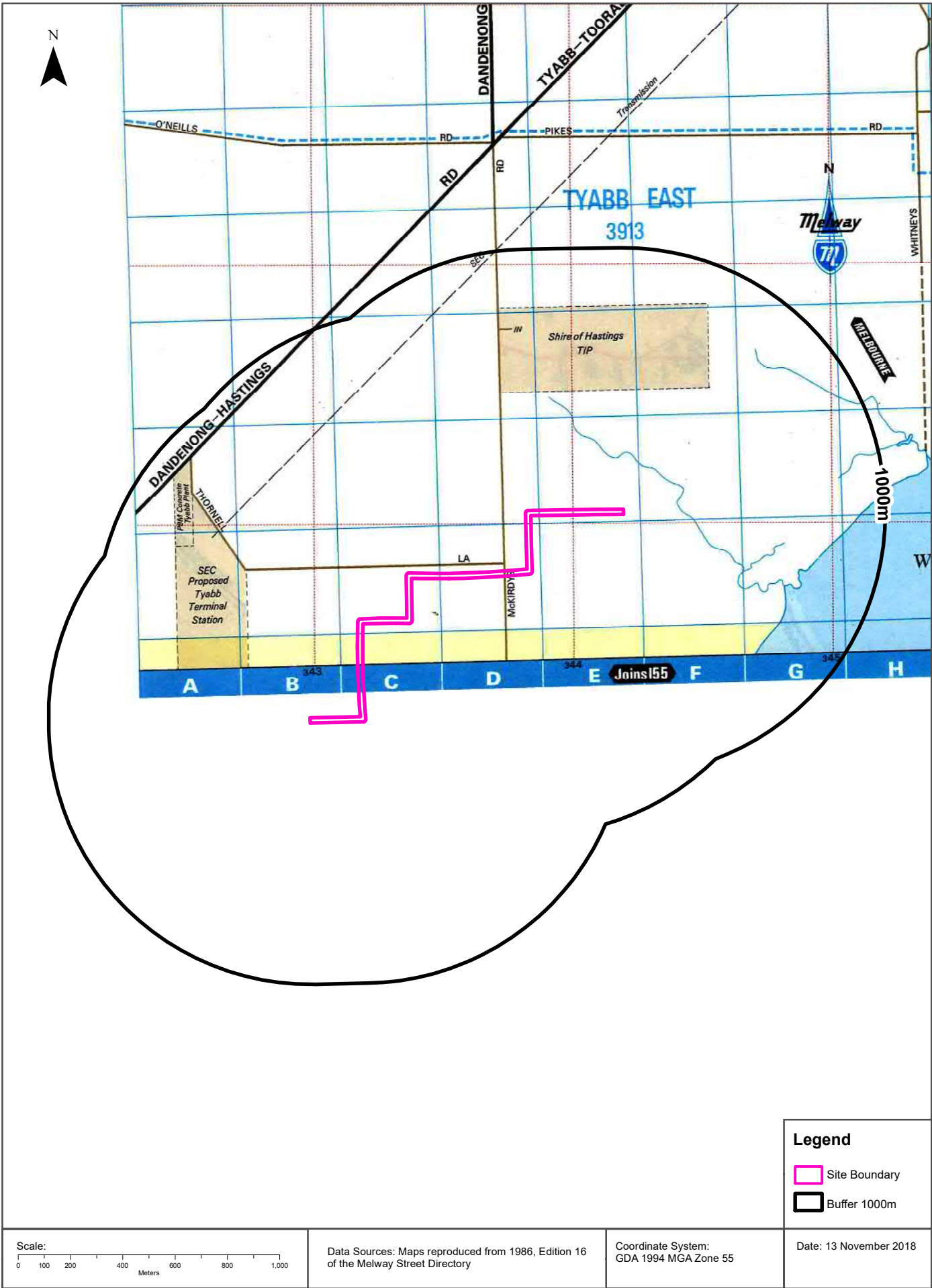
# Historical Map 1998

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



Historical Map 1986

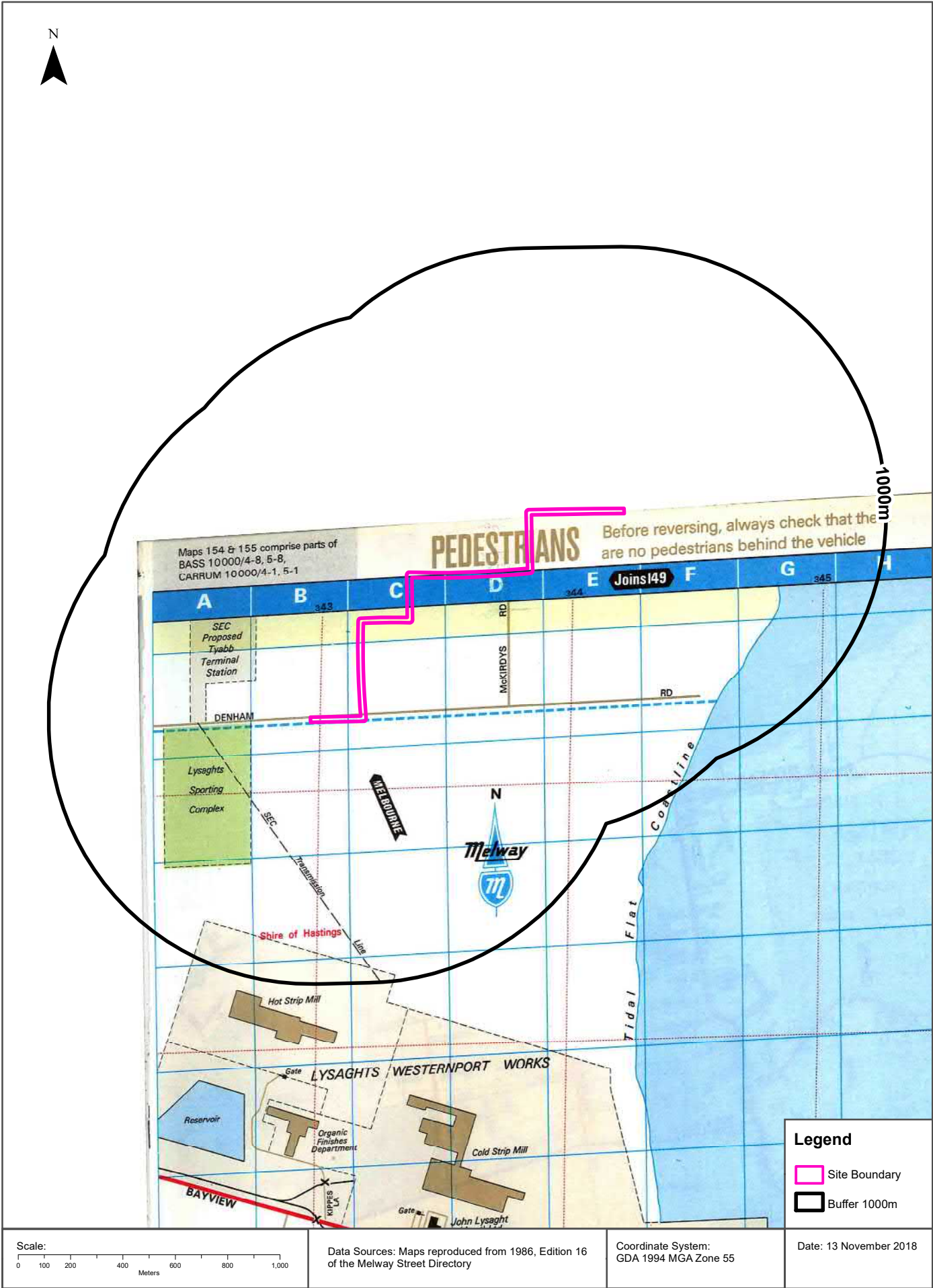
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)





Historical Map 1986

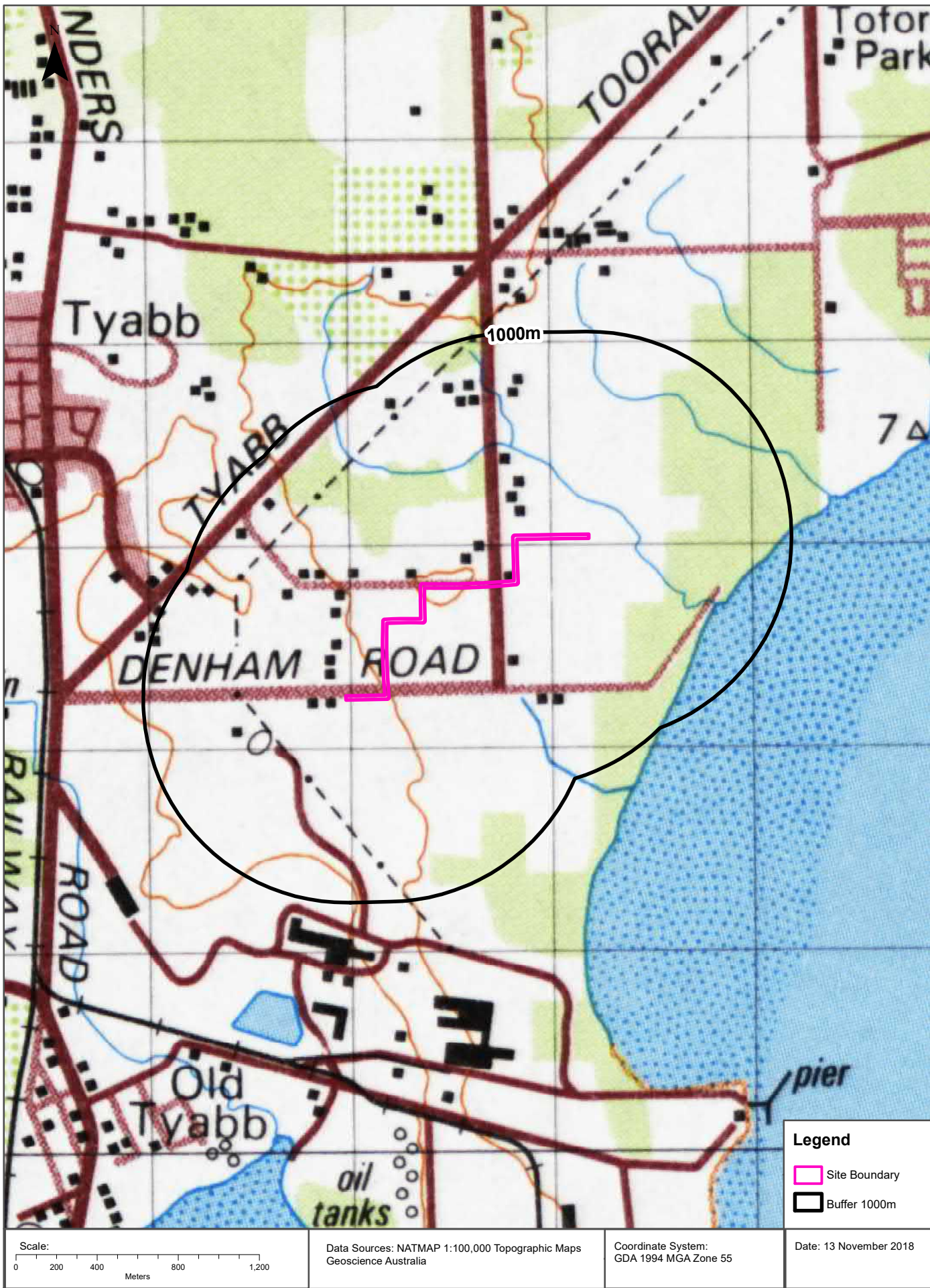
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)





Historical Map 1979

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



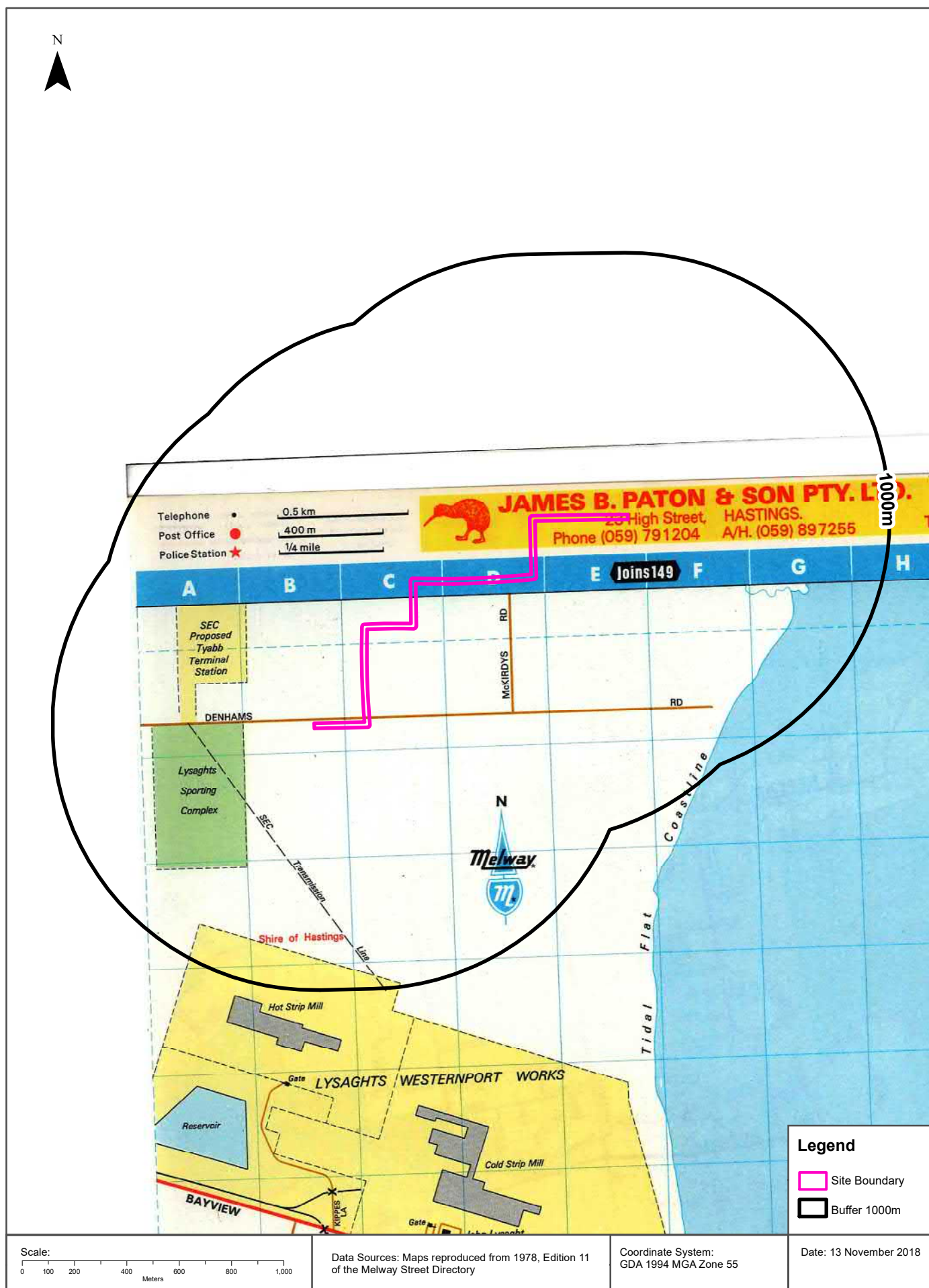
# Historical Map 1978

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



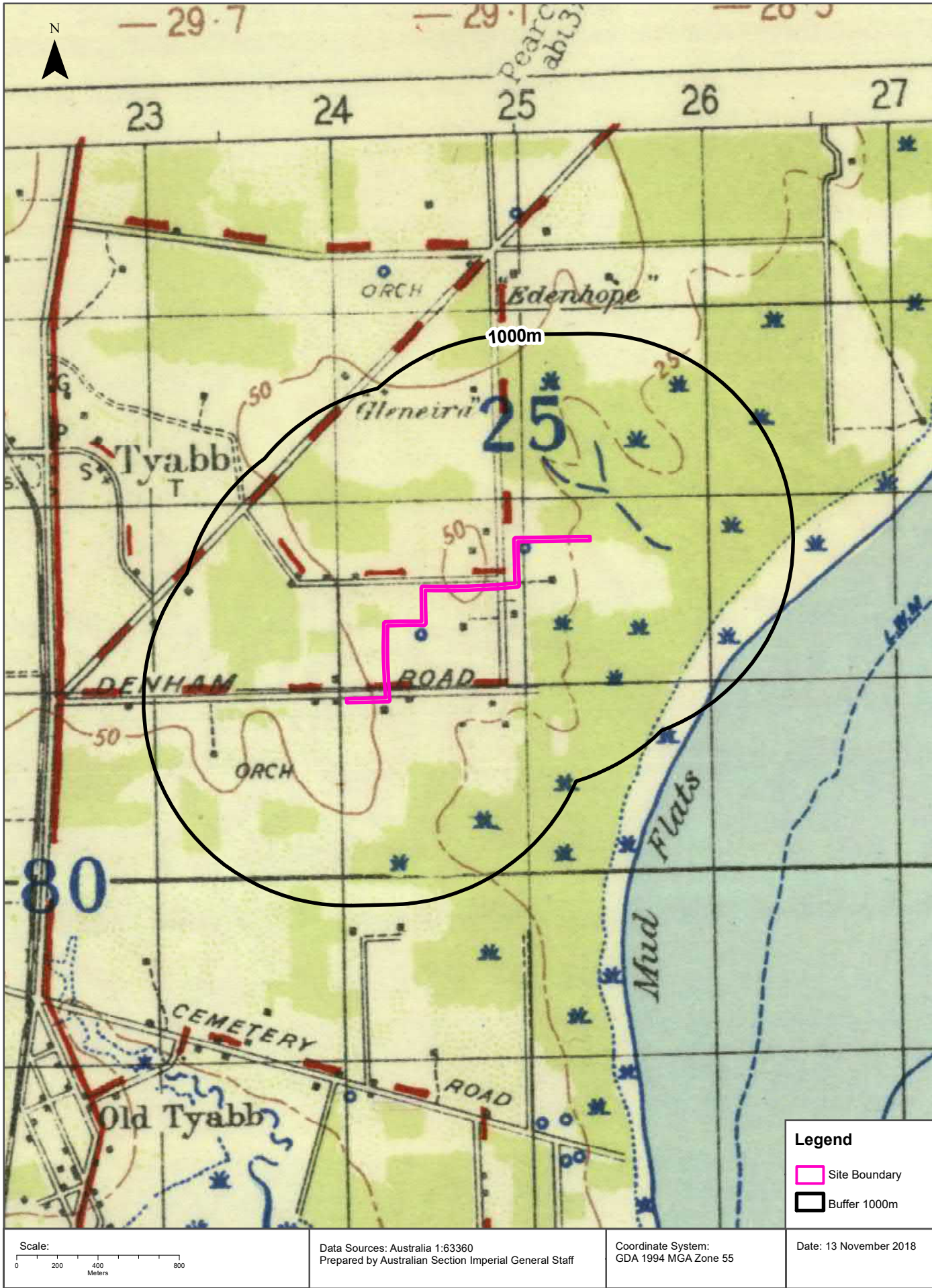


**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)**



# Historical Map 1939

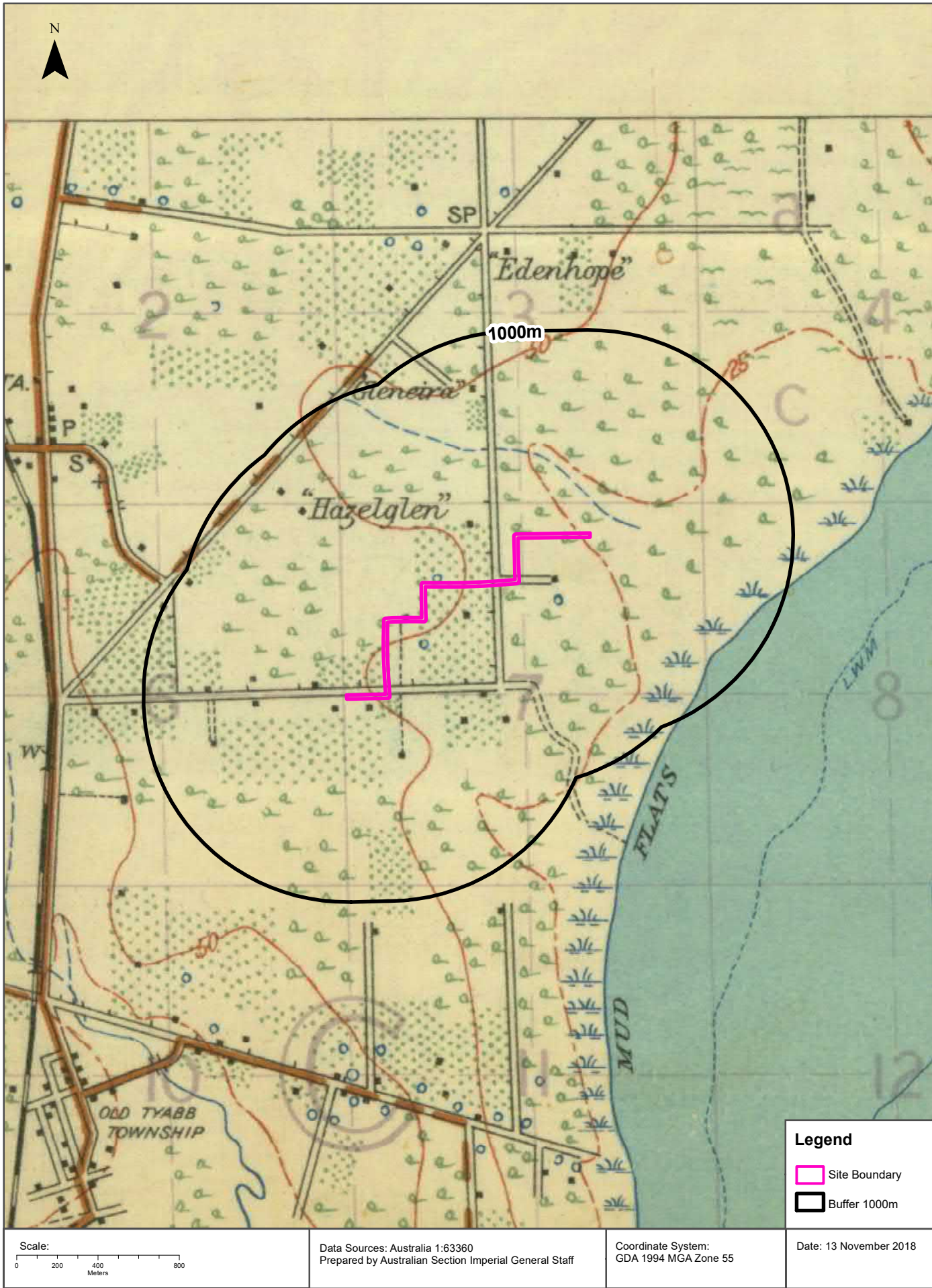
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)





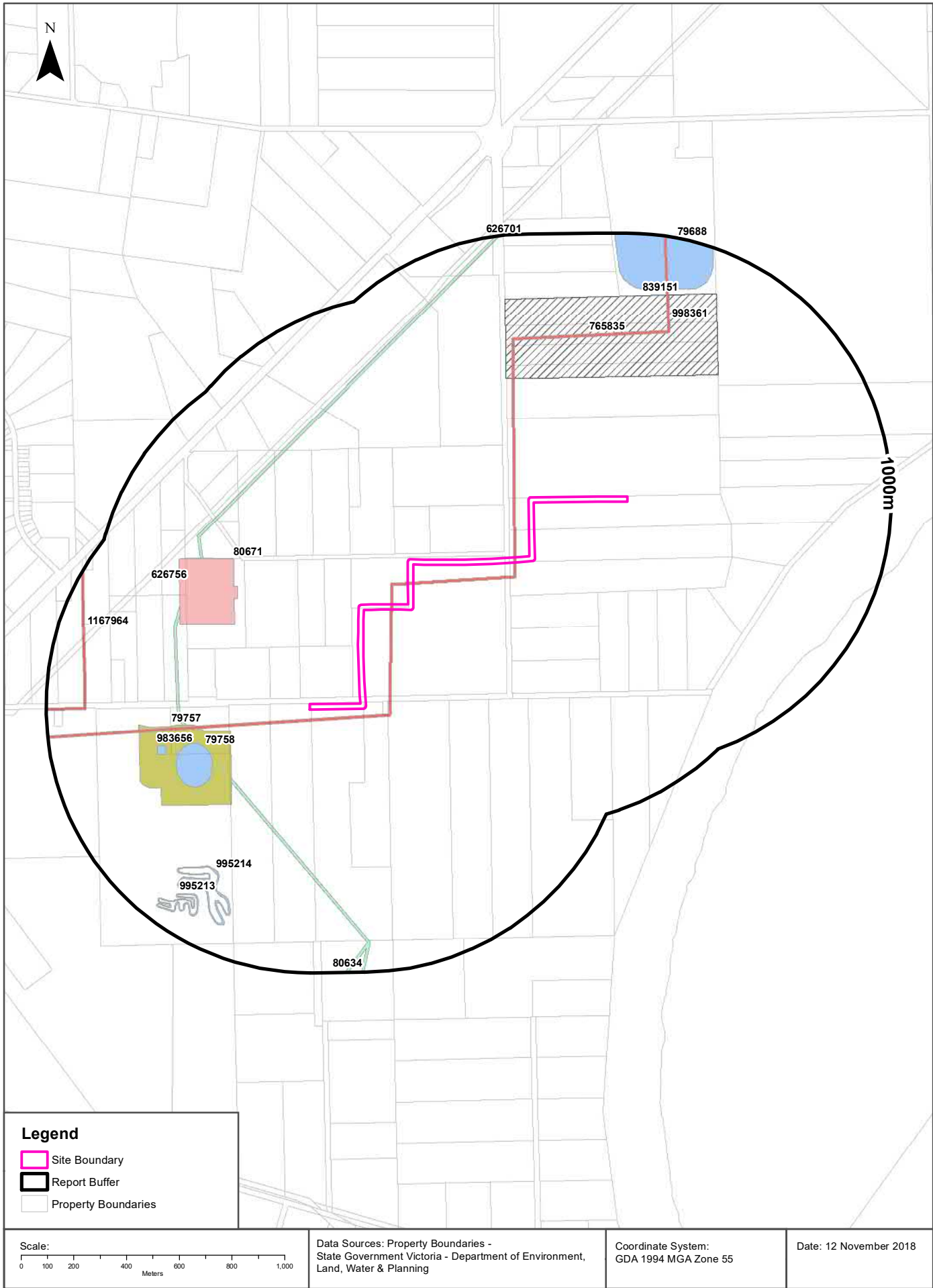
# Historical Map 1930

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Features of Interest

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Features of Interest

Features of Interest within the dataset buffer:

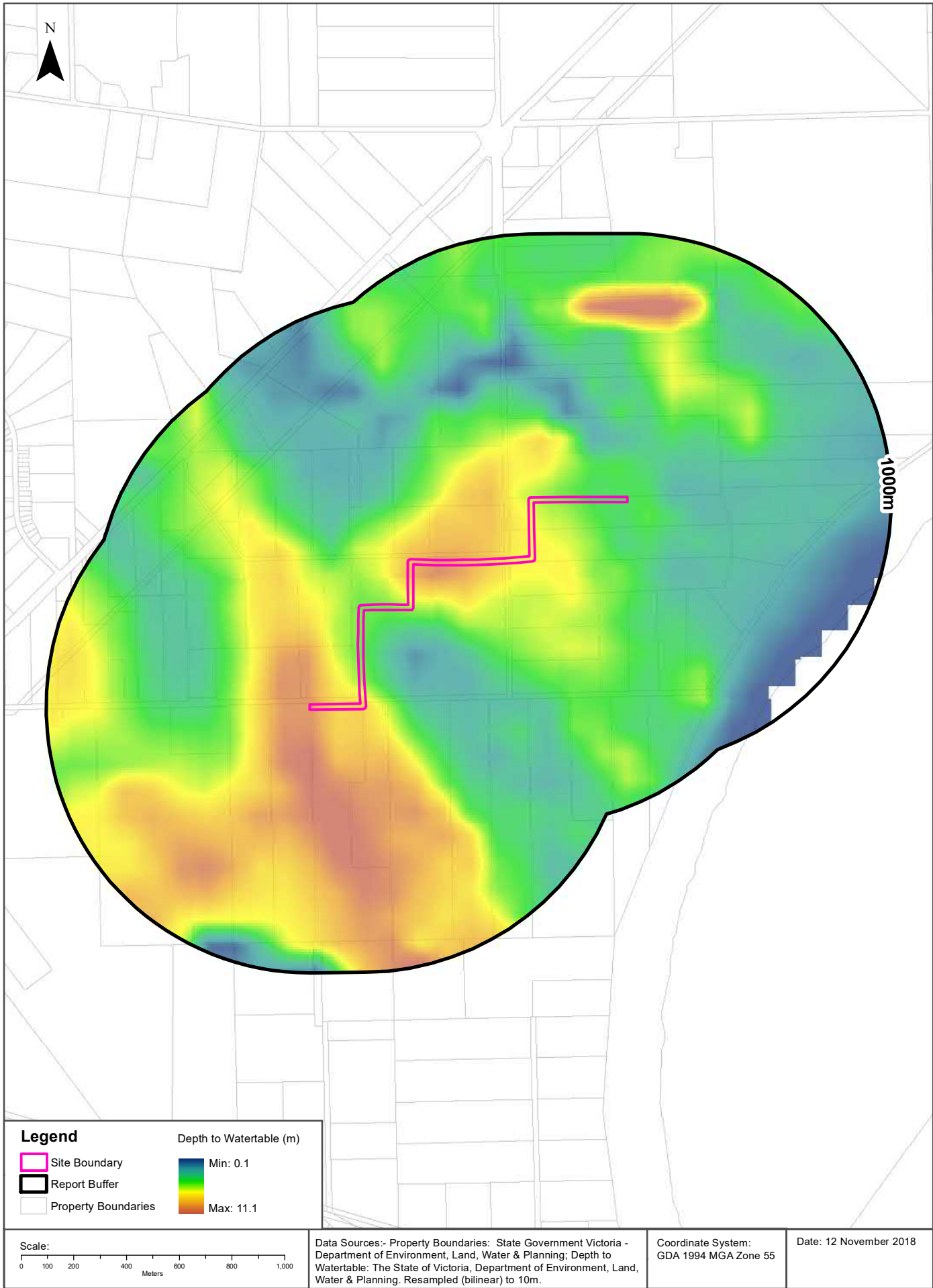
Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
998361	pipeline	oil pipeline	Dutson To Hastings	0m	Onsite
79757	reserve	park	Blue Scope Steel Recreation Centre	313m	South West
626756	power line	power transmission	Tyabb-Lysaghts	396m	South West
79758	sport facility	sports ground		416m	South West
80671	power facility	power terminal station	Tyabb Terminal Station	420m	West
839151	dumping ground	landfill	Tyabb Transfer Station	452m	North East
983656	sport facility	tennis court		564m	South West
626701	power line	power transmission	Cranbourne-Tyabb	600m	North
765835	dumping ground	transfer station	Tyabb Transfer Station	609m	North East
995214	sport facility	motor track		707m	South West
79688	sport facility	training track		790m	North East
995213	sport facility	motor track		826m	South West
1167964	pipeline	oil pipeline	Wag24	847m	North
80634	power facility	power sub station		996m	South

Features of Interest Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Depth to Watertable

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



# Hydrogeology & Groundwater

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	Onsite

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

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## Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	100

## Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
5 to 10 metres	67
Less than 5 metres	33

## Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
9 AHDm to 23 AHDm

## Basement Elevation

Approximate on-site Basement Elevation:

Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
-50 AHDm to -39 AHDm

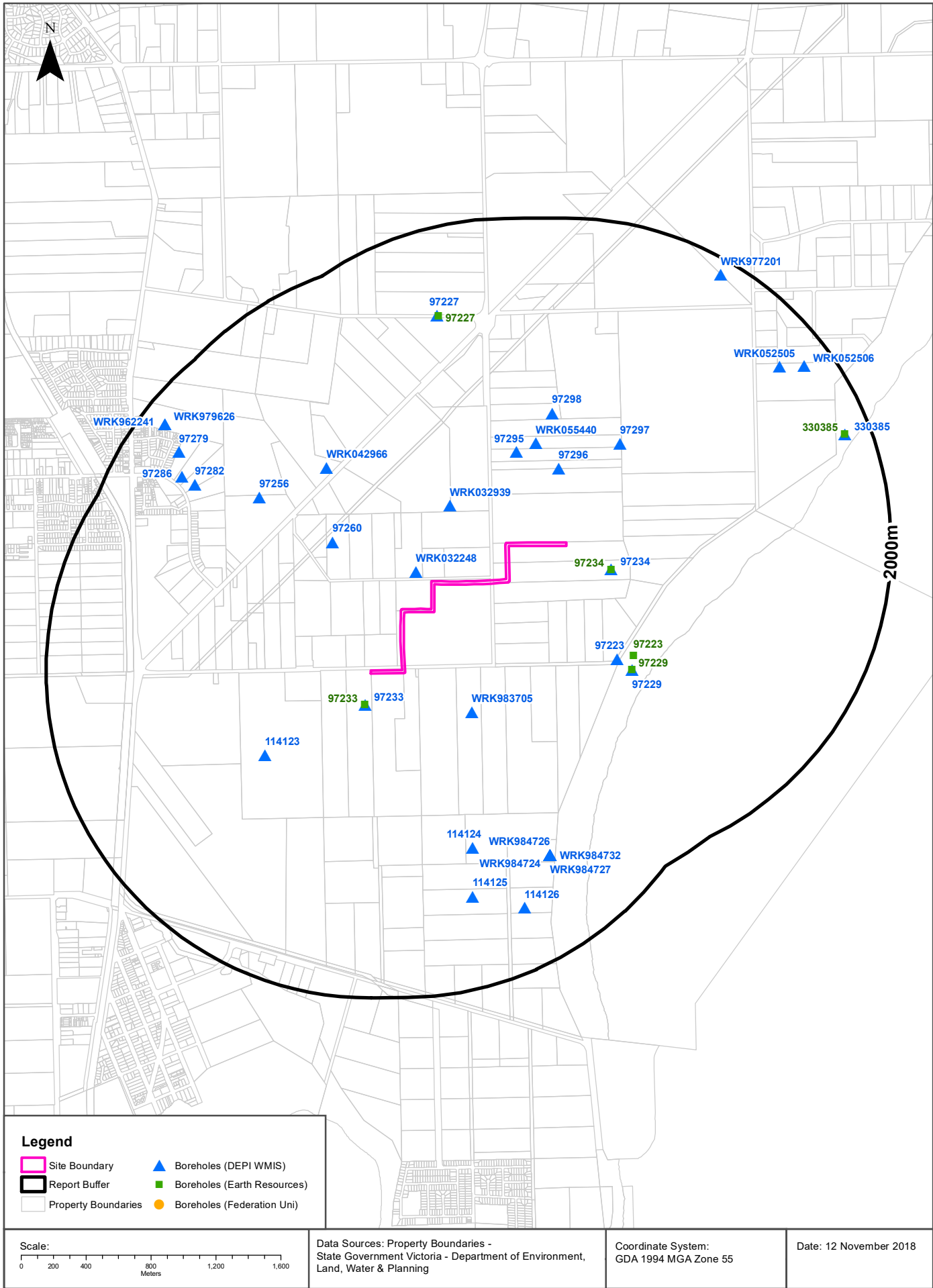
Groundwater Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



# Groundwater Boreholes

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Boreholes (DEPI WMIS)

Boreholes from the Department of Environment and Primary Industries' Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK032248	Irrigation	0.00m-0.60m SURFACE SOIL 0.60m-0.90m SUBSOIL 0.90m-3.60m CLAY 3.60m-8.50m SANDY MOTTLEY CLAY 8.50m-9.70m MARINE SILT AND SAND 9.70m-37.40m MARINE SILT AND SHELL 37.40m-39.60m DARK MARINE CLAYEY SILT 39.60m-40.00m LIMESTONE 40.00m-43.00m LAYERS OF CORAL AND LIMESTONE 43.00m-44.00m BROWN COAL 44.00m-44.20m BLACK MUDSTONE	0.20m-40.00m INNER LINING - CASING = Pvc 40.00m-43.00m INNER LINING - SCREEN = Pvc 0.00m-1.00m OUTER LINING - GRAVEL = Cement 30.00m-36.00m OUTER LINING - GRAVEL = Cement			1994-06-30	113	North West
97233	Not Known					1967-12-31	194	South West
97234	Not Known					1967-12-31	311	East
WRK032939	Commercial, Not Known	0.00m-0.30m TOP SOIL 0.30m-17.00m CLAY & SILTS 17.00m-19.00m SAND 19.00m-31.00m DARK BROWN & GREY CLAYS 31.00m-53.00m MARL 53.00m-54.50m MARINE CLAYS 54.50m-55.00m CAP ROCK 55.00m-57.80m LIMESTONE	0.00m-55.00m INNER LINING - CASING = Pvc 55.00m-58.00m INNER LINING - SCREEN = Pvc 0.00m-0.00m OUTER LINING - GRAVEL = Packer			1998-08-24	416	North
97296	Groundwater Investigation	0.00m-1.00m BROWN SANDY TOP SOIL 1.00m-1.80m BROWN-WHITE MOTTLED CLAY 1.80m-2.90m MEDIUM-FINE GREY SANDY CLAY 2.90m-6.00m FINE-MEDIUM GREY SANDY CLAY 6.00m-7.50m LIGHT BROWN SILT 7.50m-9.00m DARK BROWN CLAYISH SAND 9.00m-12.00m SANDY CLAY & WEATHERED BASALT	-0.30m-2.42m INNER LINING - CASING = Pvc 2.42m-11.60m INNER LINING - SCREEN = Pvc 1.60m-11.60m OUTER LINING - GRAVEL = Gravel		2.42m-11.60m Clay	1988-01-01	457	North East
WRK983705							478	South
97295	Groundwater Investigation	0.00m-1.10m BROWN CLAY 1.10m-6.78m GREY SANDY CLAYS 6.78m-7.00m BROWN GRAVELY CLAY 7.00m-8.00m GREY-GREEN MOTTLED CLAY 8.00m-10.15m YELLOW SANDY CLAY	0.30m-3.66m INNER LINING - CASING = Pvc 3.66m-9.66m INNER LINING - SCREEN = Pvc 3.66m-9.66m OUTER LINING - GRAVEL = Gravel		3.66m-9.66m Clay	1988-01-01	559	North
97260	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SAND 0.60m-1.20m CLAY 1.20m-15.20m STICKY MARINE CLAY 15.20m-17.30m DARK GREY CLAYEY SILT 17.30m-46.90m MARINE SILT AND SHELL 46.90m-47.50m MARINE SHELL 47.50m-49.90m LIMESTONE AND SHELL 49.90m-50.20m MUDSTONE	0.00m-45.40m INNER LINING - CASING = Galvanised Iron 47.50m-49.90m INNER LINING - SCREEN = Galvanised Iron			1981-04-01	595	North West
WRK055440	Observation	0.00m-0.50m topsoil 0.50m-1.20m clay 1.20m-2.00m clay 2.00m-4.00m sandy clay 4.00m-8.60m brown sandy clay	0.00m-5.60m INNER LINING - CASING = Pvc 5.60m-8.60m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-1.60m OUTER LINING - GRAVEL = Cement 1.60m-4.60m OUTER LINING - GRAVEL = Bentonite 4.60m-8.60m OUTER LINING - GRAVEL = Gravel		0.00m-5.60m Clay 5.60m-8.60m Clay	2010-06-17	612	North East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97297	Groundwater Investigation	0.00m-1.00m GREYISH CLAYEY SAND 1.00m-1.50m YELLOW GREY MOTTLED CLAY 1.50m-2.00m STICKY CLAYISH FINE-MEDIUM SAND 2.00m-9.90m MOTTLED GREY-RED SANDY CLAYS 9.90m-11.60m COARSE GREY SANDY CLAYS	0.00m-2.48m INNER LINING - CASING = Pvc 2.48m-11.48m INNER LINING - SCREEN = Pvc 11.48m-11.60m INNER LINING - CASING = Pvc 1.10m-11.60m OUTER LINING - GRAVEL = Gravel		2.48m-11.48m Clay	1988-01-01	692	North East
97223	Observation, State Observation Network		0.00m-38.00m INNER LINING - CASING = Not Known 38.00m-44.00m INNER LINING - SCREEN = Not Known	Date/time: 2016-04-27 1340 Quality: 43 WLMP: 4.76m DBNS: 4.34m RWL: 2.04mAHD	38.00m-44.00m Clay	1978-06-28	765	East
97298	Groundwater Investigation	0.00m-0.50m GREY CLAYEY SAND 0.50m-1.50m BROWN & GREY MOTTLED CLAY 1.50m-7.20m YELLOW-WHITE CLAYISH SANDS 7.20m-11.60m BLACK TO DARK GREY CLAYISH SANDS	0.00m-1.55m INNER LINING - CASING = Pvc 1.55m-9.55m INNER LINING - SCREEN = Pvc 1.55m-9.55m OUTER LINING - GRAVEL = Gravel		1.55m-9.55m Sand	1988-01-01	797	North East
114123	Groundwater Investigation	0.00m-2.50m SILTY SAND GREY 2.50m-3.30m SILTY SAND BROWN 3.30m-5.00m SANDY CLAY BROWN 5.00m-6.00m CLAYEY SAND YELLOW 6.00m-8.50m CLAYEY SAND GREY 8.50m-12.00m ORANGE SAND SOME BROWN 12.00m-13.50m SAND MEDIUM GREY 13.50m-15.00m SAND PINK 15.00m-18.00m SAND BROWN 18.00m-19.00m SILTY FINE SAND PINK BROWN	-0.50m-17.50m INNER LINING - CASING = Pvc 17.50m-18.50m INNER LINING - SCREEN = Pvc 18.50m-19.50m INNER LINING - SCREEN = Slotted Pvc 0.00m-1.00m OUTER LINING - GRAVEL = Cement 1.00m-4.10m OUTER LINING - GRAVEL = Bentonite 4.10m-18.50m OUTER LINING - GRAVEL = Gravel		17.50m-18.50m Sand 18.50m-19.50m Clay	1992-07-20	823	South West
97229	Not Known					1978-10-05	863	South East
WRK042966	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-3.60m MOTTLEY CLAY 3.60m-5.20m SANDY CLAY 5.20m-7.60m SANDY CLAY AND SAND 7.60m-8.40m GREY CLAY 8.40m-10.00m BROWN COAL 10.00m-13.70m GREY AND BROWN CLAY 13.70m-47.80m MARLE 47.80m-49.30m DARK GREEN MARLE AND SHELLS 49.30m-49.60m LIMESTONE 49.60m-54.90m CORAL AND SILT 54.90m-56.30m BROWN COAL WITH A LAYER OF FINE SAND 56.30m-57.90m MEDIUM SAND 57.90m-59.40m GREY CLAY 59.40m-70.00m GREY MUBSTONE 70.00m-123.00m BLACK SHALE	-0.30m-49.00m INNER LINING - CASING = Pvc 49.00m-52.00m INNER LINING - SCREEN = Pvc 52.00m-58.00m INNER LINING - SCREEN = Slotted Pvc		49.00m-52.00m Clay 52.00m-58.00m Clay	1997-05-14	952	North West
97256	Domestic, Irrigation, Stock	0.00m-1.20m SURFACE SOIL PEAT 1.20m-1.80m CLAY 1.80m-4.30m SANDY BROWN CLAY 4.30m-8.40m GREY AND BROWN SANDY CLAY 8.40m-10.40m GREY SANDY CLAY 10.40m-11.30m SLOPPY GREY SANDY CLAY 11.30m-13.10m DARK MARINE CLAY AND COARSE SAND 13.10m-15.80m BROWN CLAY WITH PIECES SANDSTONE 15.80m-19.20m SLOPPY MARINE SANDY CLAY 19.20m-48.50m MARINE CLAY, SHELL MARINE SILT, SHELL, SOFT MARINE ROCK, LAY 48.50m-48.80m BROWN COAL	0.00m-45.10m INNER LINING - CASING = Pvc 45.10m-48.80m INNER LINING - SCREEN = Pvc		45.10m-48.80m Sandstone	1980-03-06	1114	North West
114124	Groundwater Investigation	0.00m-14.00m SANDY CLAY BROWN / RED 14.00m-20.50m SAND GREY / BROWN SOME FINE 20.50m-22.50m SANDY CLAY BLACK	-0.50m-18.20m INNER LINING - CASING = Pvc 18.20m-20.20m INNER LINING - SCREEN = Pvc 20.20m-22.50m INNER LINING - SCREEN = Slotted Pvc 0.00m-4.90m OUTER LINING - GRAVEL = Cement 4.90m-6.40m OUTER LINING - GRAVEL = Bentonite 6.40m-20.20m OUTER LINING - GRAVEL = Gravel		18.20m-20.20m Sand 20.20m-22.50m Clay	1992-07-17	1155	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK984726	Domestic & Stock	0.00m-0.40m SILTY SAND 0.40m-2.50m SANDY CLAY 2.50m-4.50m CLAYEY SAND 4.50m-9.50m FINE SAND	0.00m-3.50m INNER LINING - CASING = Pvc 3.50m-9.50m INNER LINING - SCREEN = Pvc 0.00m-2.50m OUTER LINING - GRAVEL = Cement 2.50m-3.00m OUTER LINING - GRAVEL = Bentonite 3.00m-9.50m OUTER LINING - GRAVEL = Gravel			2008-01-23	1435	South
WRK984729	Domestic & Stock	0.00m-0.70m SILTY SAND 0.70m-1.60m SILTY CLAY 1.60m-7.00m SANDY CLAY 7.00m-9.50m CLAYEY SAND	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-9.00m INNER LINING - SCREEN = Pvc 0.00m-5.00m OUTER LINING - GRAVEL = Cement 5.00m-5.50m OUTER LINING - GRAVEL = Bentonite 5.50m-9.00m OUTER LINING - GRAVEL = Gravel			2008-01-17	1435	South
WRK984732	Domestic & Stock	0.00m-0.40m SANDY SILT 0.40m-6.00m SILTY CLAY 6.00m-7.50m SANDY CLAY 7.50m-9.30m CLAYEY SAND	0.00m-6.30m INNER LINING - CASING = Pvc 6.30m-9.30m INNER LINING - SCREEN = Pvc 0.00m-5.30m OUTER LINING - GRAVEL = Cement 5.30m-5.80m OUTER LINING - GRAVEL = Bentonite 5.80m-9.30m OUTER LINING - GRAVEL = Gravel			2008-01-28	1435	South
WRK984727	Domestic & Stock	0.00m-1.10m SILTY SAND 1.10m-2.20m SANDY CLAY 2.20m-6.80m SAND & SOME CLAY	0.00m-3.80m INNER LINING - CASING = Pvc 3.80m-6.80m INNER LINING - SCREEN = Pvc 0.00m-2.80m OUTER LINING - GRAVEL = Cement 2.80m-3.30m OUTER LINING - GRAVEL = Bentonite 3.30m-6.80m OUTER LINING - GRAVEL = Gravel			2008-01-22	1435	South
WRK984731	Domestic & Stock	0.00m-0.40m SILTY SAND 0.40m-2.00m SILTY CLAY 2.00m-5.00m SANDY CLAY 5.00m-9.50m CLAYEY SAND	0.00m-4.00m INNER LINING - CASING = Pvc 4.00m-7.00m INNER LINING - SCREEN = Pvc 0.00m-3.00m OUTER LINING - GRAVEL = Cement 3.00m-3.50m OUTER LINING - GRAVEL = Bentonite 3.50m-7.00m OUTER LINING - GRAVEL = Gravel			2008-01-17	1435	South
WRK984725	Domestic & Stock	0.00m-0.80m FILL CLAY 0.80m-1.70m CLAY (NATURAL) 6.30m-7.20m SANDY CLAY	0.00m-4.00m INNER LINING - CASING = Pvc 4.00m-7.00m INNER LINING - SCREEN = Pvc 0.00m-3.00m OUTER LINING - GRAVEL = Cement 3.00m-3.50m OUTER LINING - GRAVEL = Bentonite 3.50m-7.00m OUTER LINING - GRAVEL = Gravel			2008-01-24	1435	South
WRK984724	Domestic & Stock	0.00m-0.40m SANDY SILT 0.40m-3.00m SILTY CLAY 3.00m-5.10m SANDY CLAY	0.00m-2.10m INNER LINING - CASING = Pvc 2.10m-5.10m INNER LINING - SCREEN = Pvc 0.00m-0.80m OUTER LINING - GRAVEL = Cement 0.80m-1.60m OUTER LINING - GRAVEL = Bentonite 1.60m-5.10m OUTER LINING - GRAVEL = Gravel			2008-01-25	1435	South
WRK984730	Domestic & Stock	0.00m-1.00m SILTY SAND 1.00m-4.10m SANDY CLAY 4.10m-7.50m CLAYEY SAND	0.00m-3.10m INNER LINING - CASING = Pvc 3.10m-6.10m INNER LINING - SCREEN = Pvc 0.00m-2.10m OUTER LINING - GRAVEL = Cement 2.10m-2.60m OUTER LINING - GRAVEL = Bentonite 2.60m-6.10m OUTER LINING - GRAVEL = Gravel			2008-01-18	1435	South
WRK984728	Domestic & Stock	0.00m-1.00m SILTY SAND 1.00m-3.00m SANDY CLAY 3.00m-5.50m CLAYEY SAND	0.00m-2.50m INNER LINING - CASING = Pvc 2.50m-5.50m INNER LINING - SCREEN = Pvc 0.00m-1.50m OUTER LINING - GRAVEL = Cement 1.50m-2.00m OUTER LINING - GRAVEL = Bentonite 2.00m-5.50m OUTER LINING - GRAVEL = Gravel			2008-01-22	1435	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK984723	Domestic & Stock	0.00m-0.40m SILTY SAND 0.40m-6.10m SANDY CLAY 6.10m-6.50m CLAYEY SAND 6.50m-10.80m SAND	0.00m-7.80m INNER LINING - CASING = Pvc 7.80m-10.80m INNER LINING - SCREEN = Pvc 0.00m-6.50m OUTER LINING - GRAVEL = Cement 6.50m-7.20m OUTER LINING - GRAVEL = Bentonite 7.20m-10.80m OUTER LINING - GRAVEL = Gravel			2008-01-22	1435	South
114125	Groundwater Investigation	0.00m-1.20m SANDY CLAY ORANGE / BROWN 1.20m-2.40m SILTY SAND GREY / BROWN 2.40m-5.00m SANDY CLAY ORANGE SOME GREY 5.00m-9.00m CLAYEY SAND BROWN / GREY 9.00m-12.00m SANDY CLAY RED GREY 12.00m-18.00m SILTY SAND RED SOME ORANGE 18.00m-21.00m SAND MEDIUM GREY SOME GREY	-0.50m-18.50m INNER LINING - CASING = Pvc 18.50m-19.30m INNER LINING - SCREEN = Pvc 19.30m-21.00m INNER LINING - SCREEN = Slotted Pvc 0.00m-9.70m OUTER LINING - GRAVEL = Cement 9.70m-10.70m OUTER LINING - GRAVEL = Bentonite 10.70m-21.00m OUTER LINING - GRAVEL = Gravel		18.50m-19.30m Sand 19.30m-21.00m Sand	1992-07-28	1439	South
97227	Observation, State Observation Network		0.00m-36.00m INNER LINING - CASING = Not Known 36.00m-42.00m INNER LINING - SCREEN = Not Known	Date/time: 2018-08-01 1026 Quality: 43 WLMP: 7.62m DBNS: 6.71m RWL: 15.98mAH	36.00m-42.00m Clay	1978-11-20	1467	North
97282	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.90m BROWN SANDY CLAY 0.90m-3.90m BROWN & GREY CLAY 3.90m-4.60m RED CLAY 4.60m-5.10m IRONSTONE 5.10m-16.80m BROWN SANDY CLAY 16.80m-17.00m IRONSTONE 17.00m-33.90m MARINE SILT 33.90m-35.60m DARK MARINE SILT & SHELL 35.60m-36.50m MARINE ROCK 36.50m-38.70m LIMESTONE CORAL & SAND 38.70m-39.00m BROWN COAL 39.00m-41.10m SANDSTONE MUDSTONE 41.10m-42.00m MUDSTONE 42.00m-84.00m SANDSTONE	0.00m-35.60m INNER LINING - CASING = Pvc 35.60m-70.00m INNER LINING - SCREEN = Pvc		35.60m-70.00m Limestone	1988-03-15	1486	North West
97286	Domestic & Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m BROWN SANDY CLAY 0.90m-3.90m BROWN & GREY CLAY 3.90m-4.60m RED CLAY 4.60m-5.10m IRONSTONE 5.10m-16.80m BROWN SANDY CLAY 16.80m-17.00m IRONSTONE 17.00m-33.90m MARINE SILT 33.90m-35.60m DARK MARINE SILT & SHELL 35.60m-36.50m MARINE ROCK 36.50m-38.70m LIMESTONE CORAL & SAND 38.70m-39.00m BROWN COAL 39.00m-41.10m SANDSTONE MUDSTONE 41.10m-42.00m MUDSTONE 42.00m-84.00m SANDSTONE	0.00m-35.60m INNER LINING - CASING = Pvc 35.00m-35.80m INNER LINING - CASING = Pvc 35.60m-39.00m INNER LINING - SCREEN = Pvc 70.00m-71.60m INNER LINING - CASING = Pvc		35.60m-39.00m Limestone	1988-03-15	1581	North West
114126	Groundwater Investigation	0.00m-1.30m SANDY CLAY ORANGE 1.30m-2.40m CLAYEY SAND ORANGE 2.40m-3.00m GREY SILT 3.00m-7.50m SANDY CLAY ORANGE GREY 7.50m-10.20m CLAYEY SAND ORANGE / GREY SOME BROWN 10.20m-20.00m RED SAND FINE - MEDIUM 20.00m-24.00m SANDY SILT GREY	-0.50m-19.80m INNER LINING - CASING = Pvc 19.80m-20.80m INNER LINING - SCREEN = Pvc 20.80m-24.00m INNER LINING - SCREEN = Slotted Pvc 0.00m-4.00m OUTER LINING - GRAVEL = Cement 4.00m-5.20m OUTER LINING - GRAVEL = Bentonite 5.20m-20.80m OUTER LINING - GRAVEL = Gravel		19.80m-20.80m Sand 20.80m-24.00m Silt	1992-07-23	1625	South



Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97279	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SAND 0.60m-1.20m RED CLAY 1.20m-4.60m MOTTLEY CLAY 4.60m-7.90m WHITE CLAY & MEDIUM SAND 7.90m-14.30m FINE WHITE SANDY CLAY 14.30m-22.30m DARK MARINE SILT 22.30m-39.10m LIGHT MARINE SILT 39.10m-41.00m LIGHT GREY SILT 41.00m-42.00m MARINE ROCK 42.00m-42.30m LIMESTONE 42.30m-43.60m CORAL & LIMESTONE LAYERS 43.60m-44.80m MUDSTONE - ABANDONED	0.00m-42.00m INNER LINING - CASING = Not Known 42.00m-43.50m INNER LINING - SCREEN = Not Known			1988-03-03	1680	North West
WRK052505	Irrigation	0.00m-0.30m TOP SOIL 0.30m-44.00m CLAY 44.00m-48.00m STONE	0.00m-44.00m INNER LINING - CASING = Pvc 1.00m-44.00m OUTER LINING - GRAVEL = Cement 44.00m-48.00m OUTER LINING - GRAVEL = Packer			2008-07-04	1701	North East
WRK052506	Irrigation	0.00m-0.30m TOP SOIL 0.30m-44.30m CLAY 44.30m-49.00m STONE	0.00m-44.50m INNER LINING - CASING = Pvc 0.00m-44.50m OUTER LINING - GRAVEL = Cement 44.50m-49.00m OUTER LINING - GRAVEL = Seal			2008-07-07	1826	North East
330385	Non Groundwater					1919-12-31	1841	North East
WRK962241	Irrigation	0.00m-0.30m TOP SOIL 0.30m-11.00m SANDY CLAY 11.00m-14.00m SAND 14.00m-18.00m LAGOON SEDIMENTS 18.00m-32.00m MARL 32.00m-40.00m MARL & SEASHELLS 40.00m-42.00m CLAY 42.00m-121.00m SHALE				2003-12-07	1851	North West
WRK979626							1851	North West
WRK977201							1904	North East

Boreholes WMIS Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Direct
97233		Private Individual/Corporation				31/12/1967	53.34		300	194	South West
97234		Private Individual/Corporation				31/12/1967	45.72		300	309	East
97223		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		28/06/1978	58.00	6.50	300	790	East
97229		Department of Manufacturing & Industry Development		Percussion (cable)	Abandoned	05/10/1978	44.00	5.70	300	862	East
97227		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		20/11/1978	48.00	22.70	300	1462	North
330385		Department of Manufacturing & Industry Development				31/12/1919	56.39		300	1840	North East

Boreholes Earth Resources Data Source: © The State of Victoria, Department of Economic Development, Jobs, Transport and Resources 2015. Creative Commons Attribution 3.0 Australia

### Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Direct
N/A	No records within buffer						

Boreholes FedUni Data Source: © Federation University Australia

## Historical Mining Activity - Shafts

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Historical Mining Activity - Shafts

Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

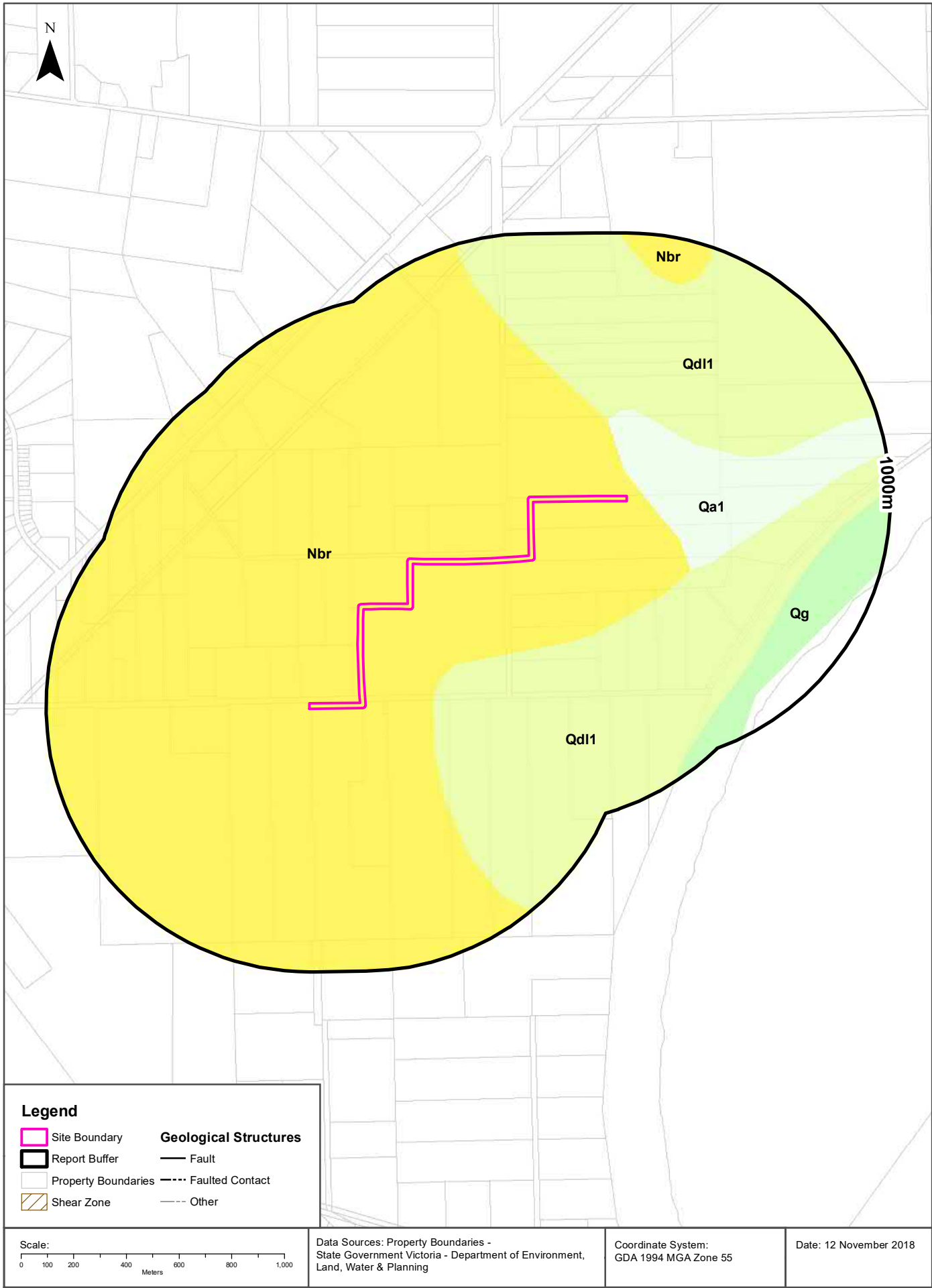
Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Historical Mining Activity Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources

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Geology 1:250,000

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)





## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Geological Units

What are the Geological Units onsite?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qa1	alluvium( Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	Pleistocene to Holocene	gravel material (significant); sand (significant); silt material (significant)	1:250,000
Qdl1	coastal dune deposits (Qdl1): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qg	coastal lagoon deposits (Qg): generic	Silt, clay: dark grey to black; variably consolidated	Holocene to Holocene	silt material (significant); clay lithology (significant)	1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Geological Structures

What are the Geological Faults or Faulted Contacts onsite?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

What are the Dykes, Marker Beds and Veins onsite?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones onsite (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

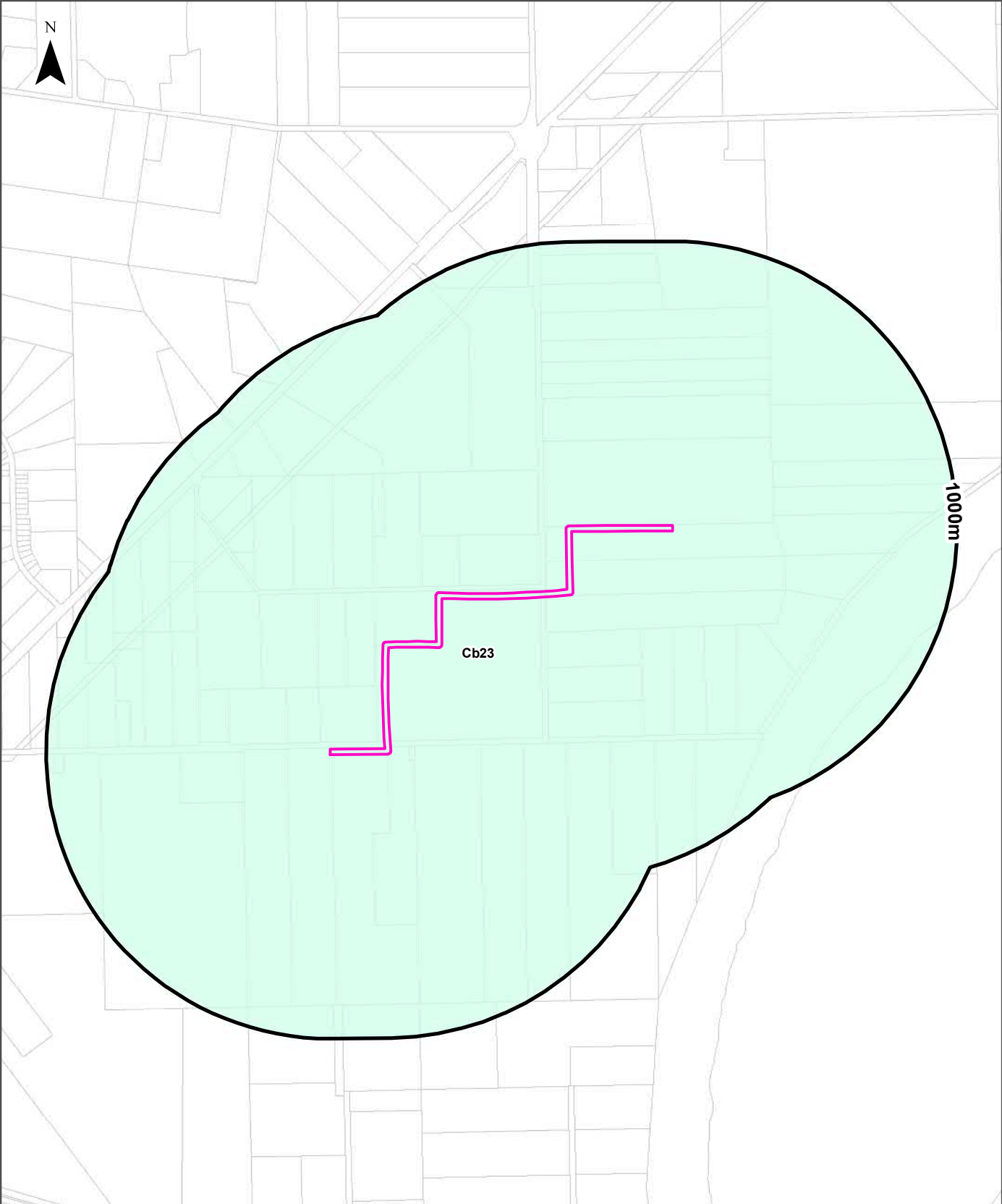
What are the Dykes, Marker Beds and Veins within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones within the dataset buffer (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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Legend		Australian Soil Classification Orders					
Site Boundary	Anthrosol	Dermosol	Kandosol	Podosol	Tenosol	No Data	
Report Buffer	Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol		
Property Boundary	Chromosol	Hydrosol	Organosol	Sodosol	Lake		

Scale: 0 100 200 400 600 800 1,000 Meters

Data Sources: Property Boundaries - State Government Victoria - Department of Environment, Land, Water & Planning

Coordinate System: GDA 1994 MGA Zone 55

Date: 12 November 2018

## Soil Landscapes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Atlas of Australian Soils

Australian soil types within the dataset buffer:

Symbol	Soil Order	Map Unit Description	Distance
Cb23	Podosol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests. and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m

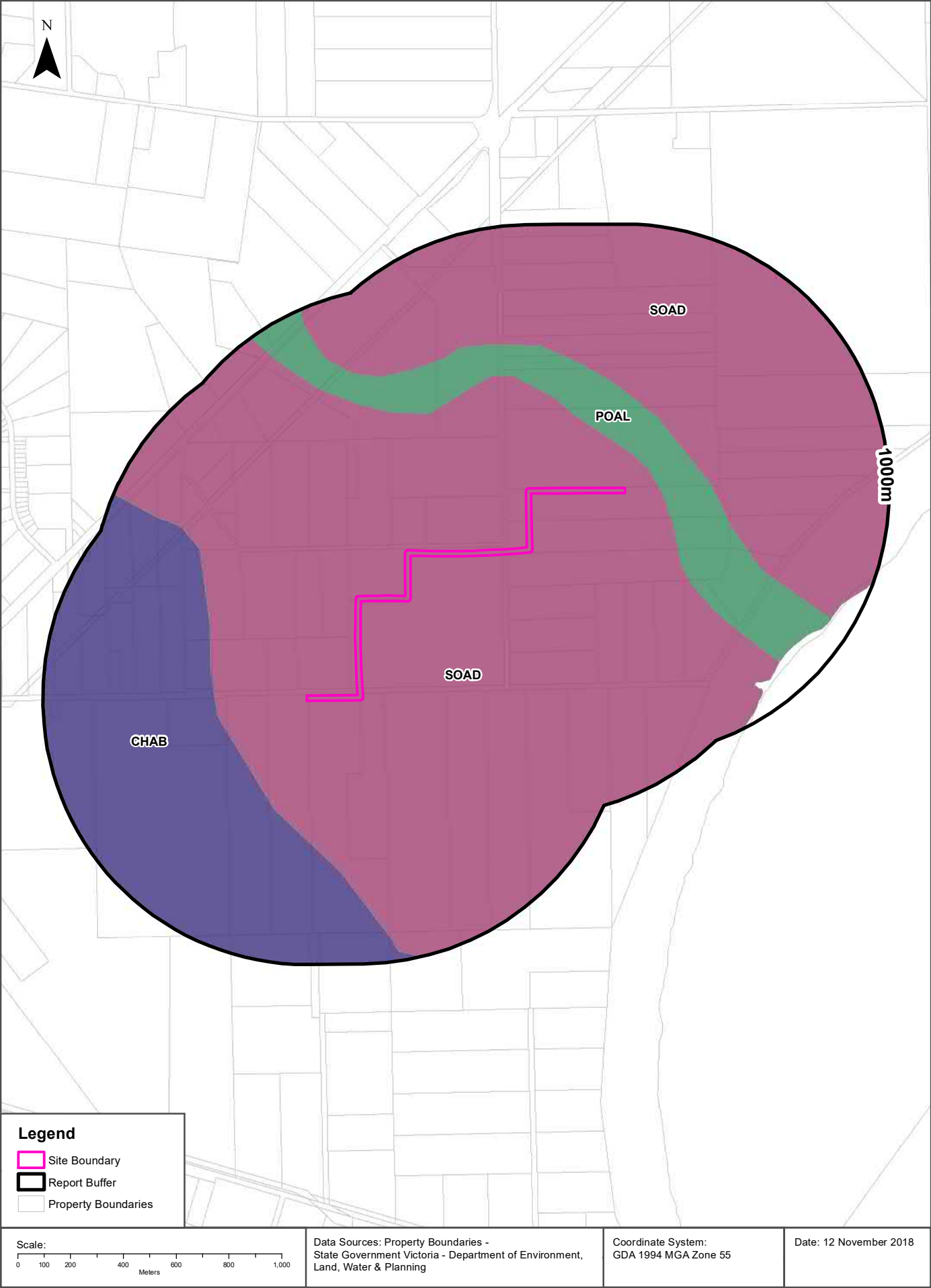
Atlas of Australian Soils: CSIRO

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# Victorian Soil Type Mapping

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Soil Landscapes

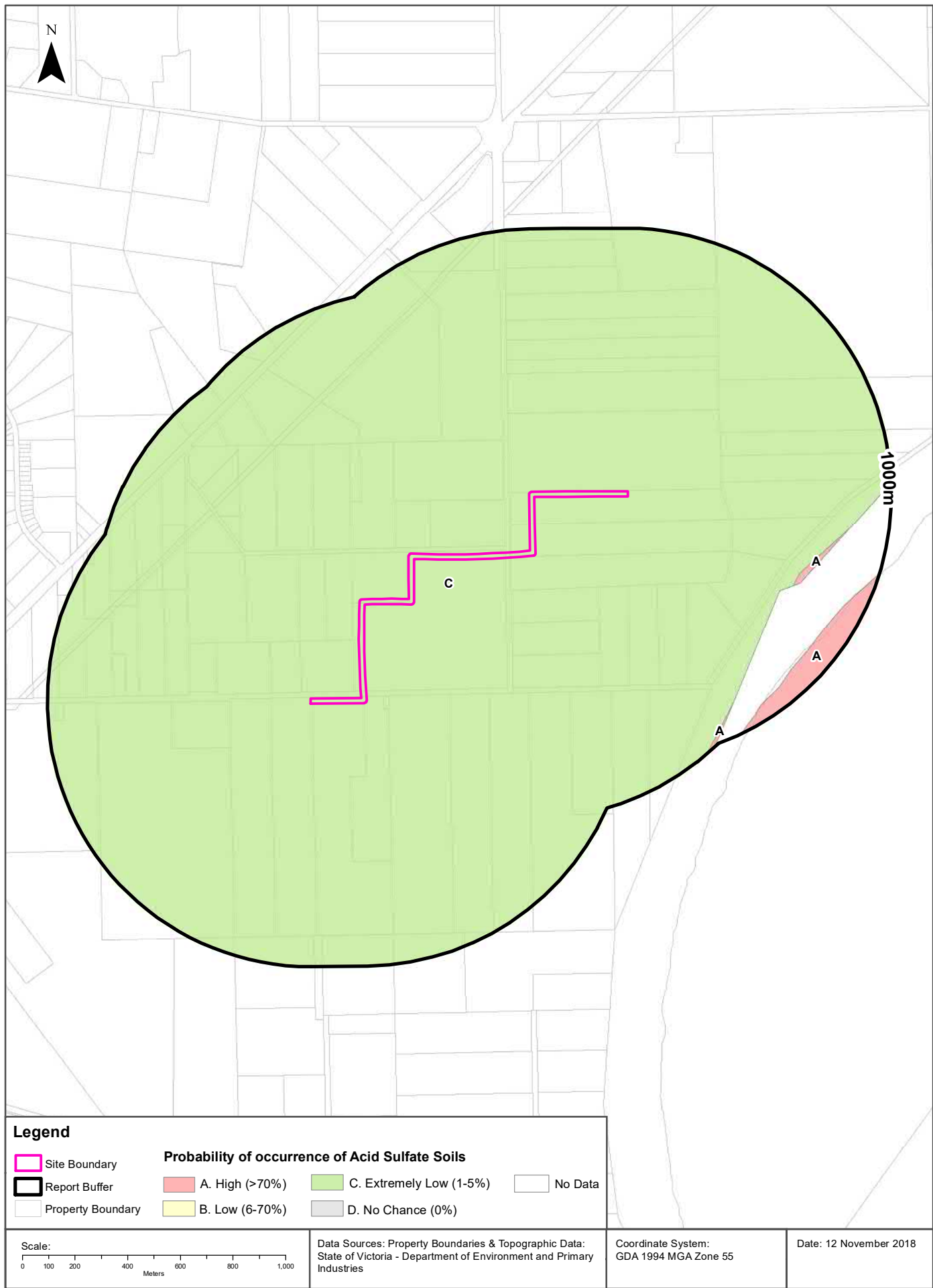
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Victorian Soil Type Mapping

Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance
SOAD	Grey Sodosols	0m
POAL	Aeric Podosols	109m
CHAB	Brown Chromosols	319m

Victorian Soil Type Mapping Data Source: Department of Economic Development, Jobs, Transport and Resources  
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## Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Atlas of Australian Acid Sulfate Soils

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

PROBCLASS	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m
A	High Probability of occurrence. >70% chance of occurrence.	711m

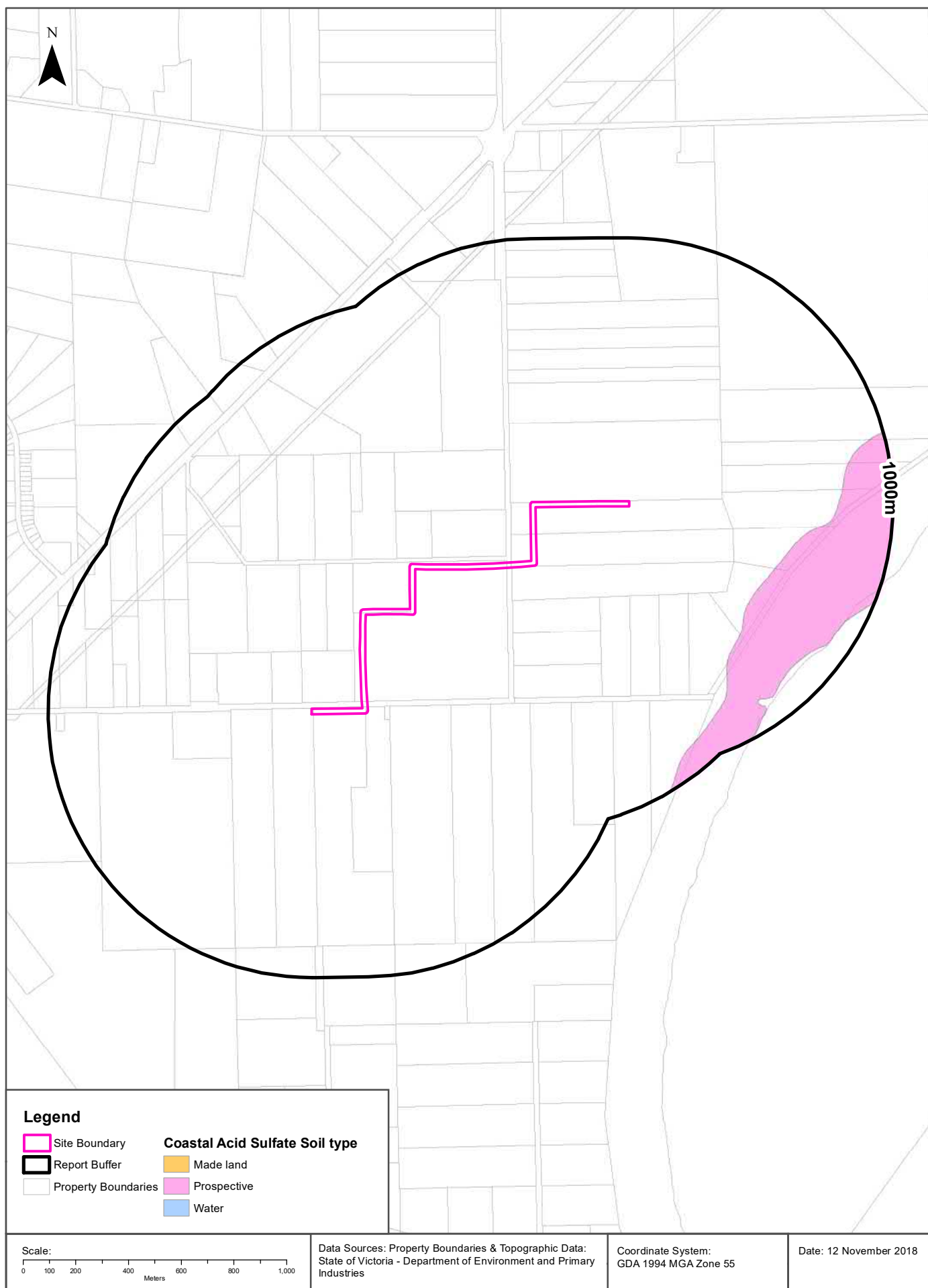
Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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# Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Coastal Acid Sulfate Soils

What are the on-site Coastal Acid Sulfate Soil types?

Coastal Acid Sulfate Soil Types
There are no Acid Sulfate areas onsite

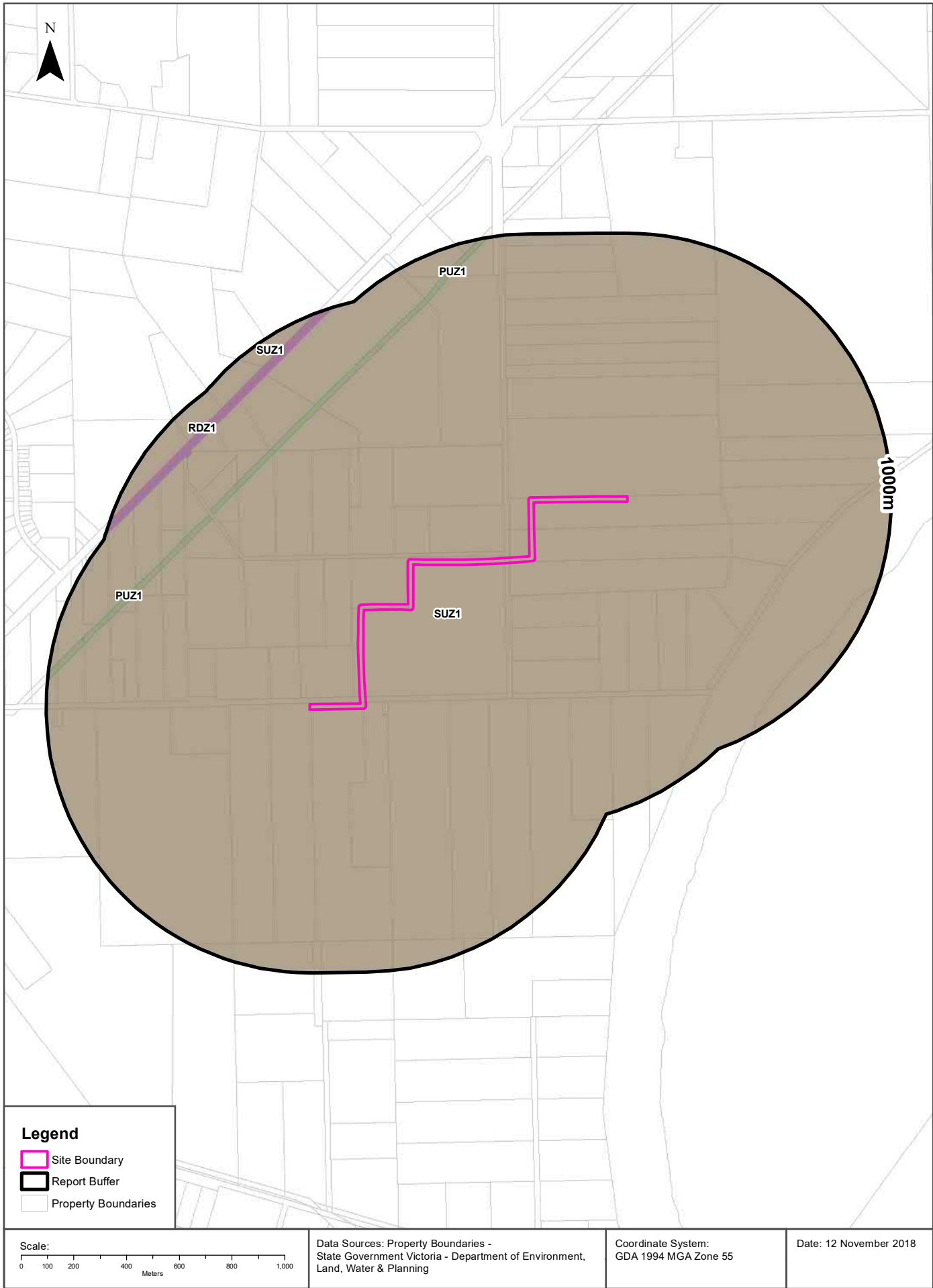
What are the Coastal Acid Sulfate Soil types within the dataset buffer?

Coastal Acid Sulfate Soil Types	Distance	Direction
Prospective	576m	East

Coastal Acid Sulfate Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Planning Zones

Planning zones within the dataset buffer:

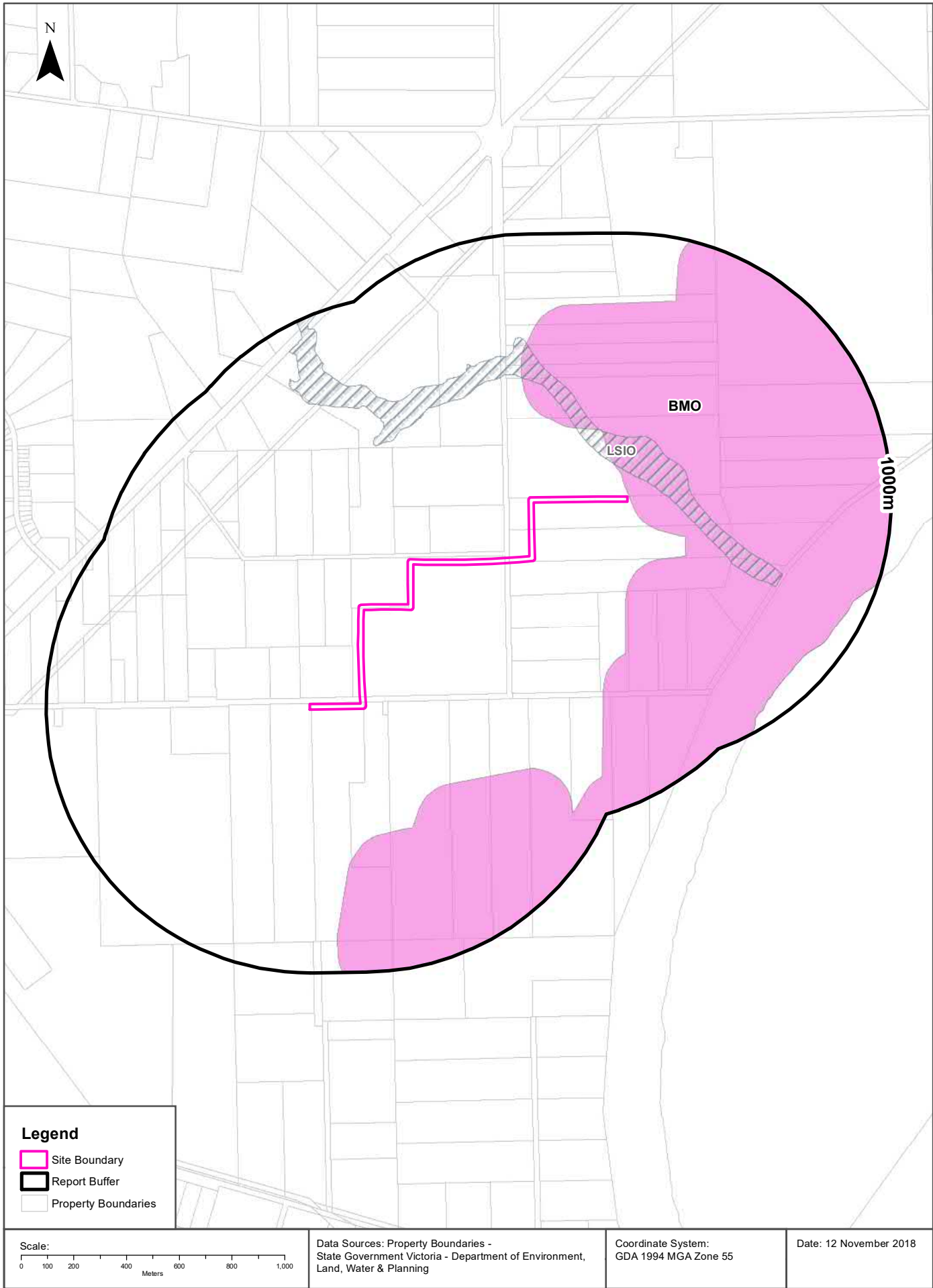
Zone Code	Description	Distance	Direction
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	0m	Onsite
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	640m	North West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	652m	West
RDZ1	ROAD ZONE - CATEGORY 1	862m	South West
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	901m	North

Planning Zone Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Planning Overlays

Planning overlays within the dataset buffer:

Zone Code	Description	Distance	Direction
BMO	BUSHFIRE MANAGEMENT OVERLAY	5m	East
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	83m	North

Planning Overlay Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

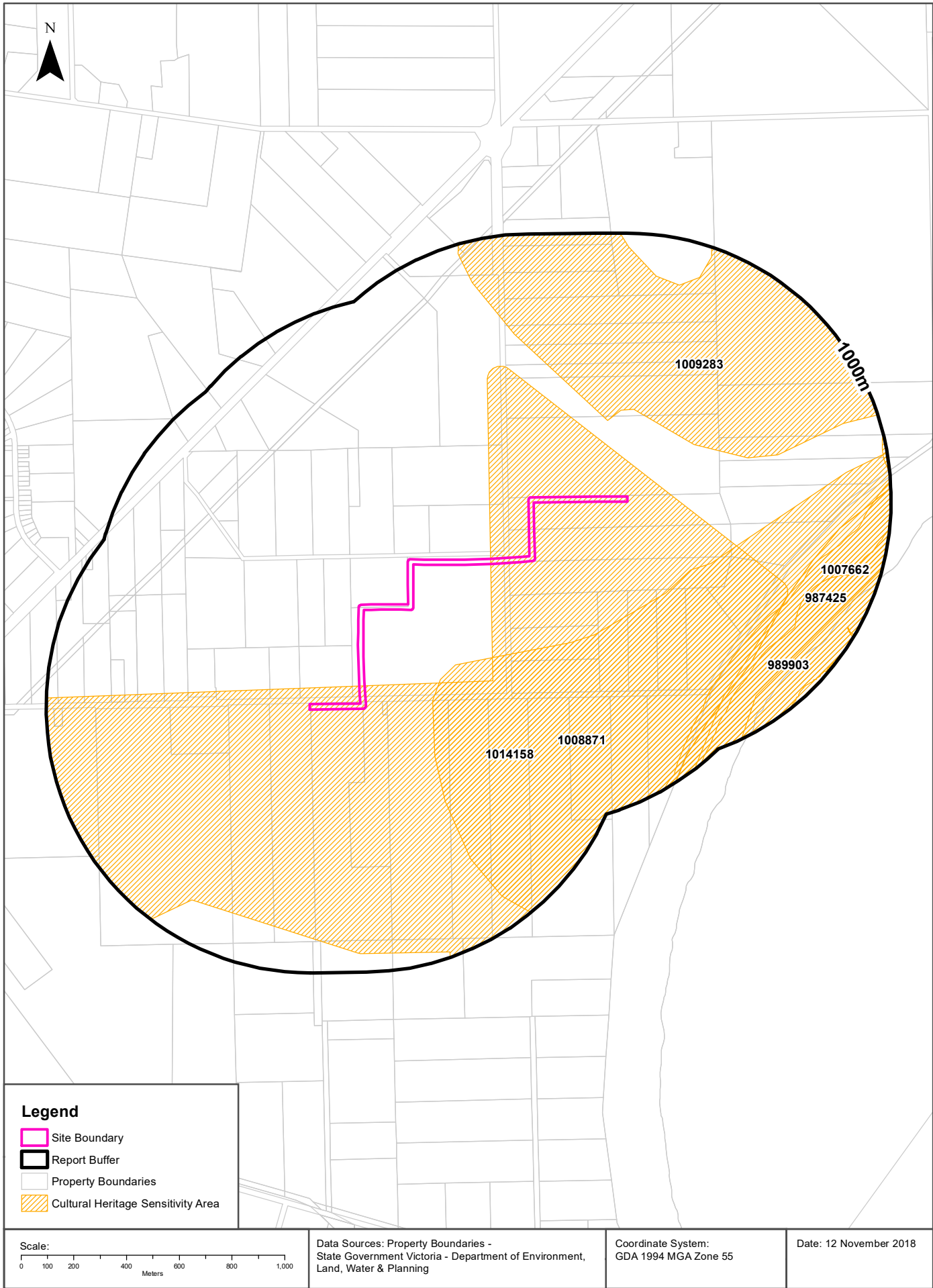
### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Victorian Heritage Register

What are the Victorian Heritage Register items located within the dataset buffer?:

VHR Number	Description	Distance	Direction
N/A	No records within buffer		

Victorian Heritage Register Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Cultural Heritage Sensitivity

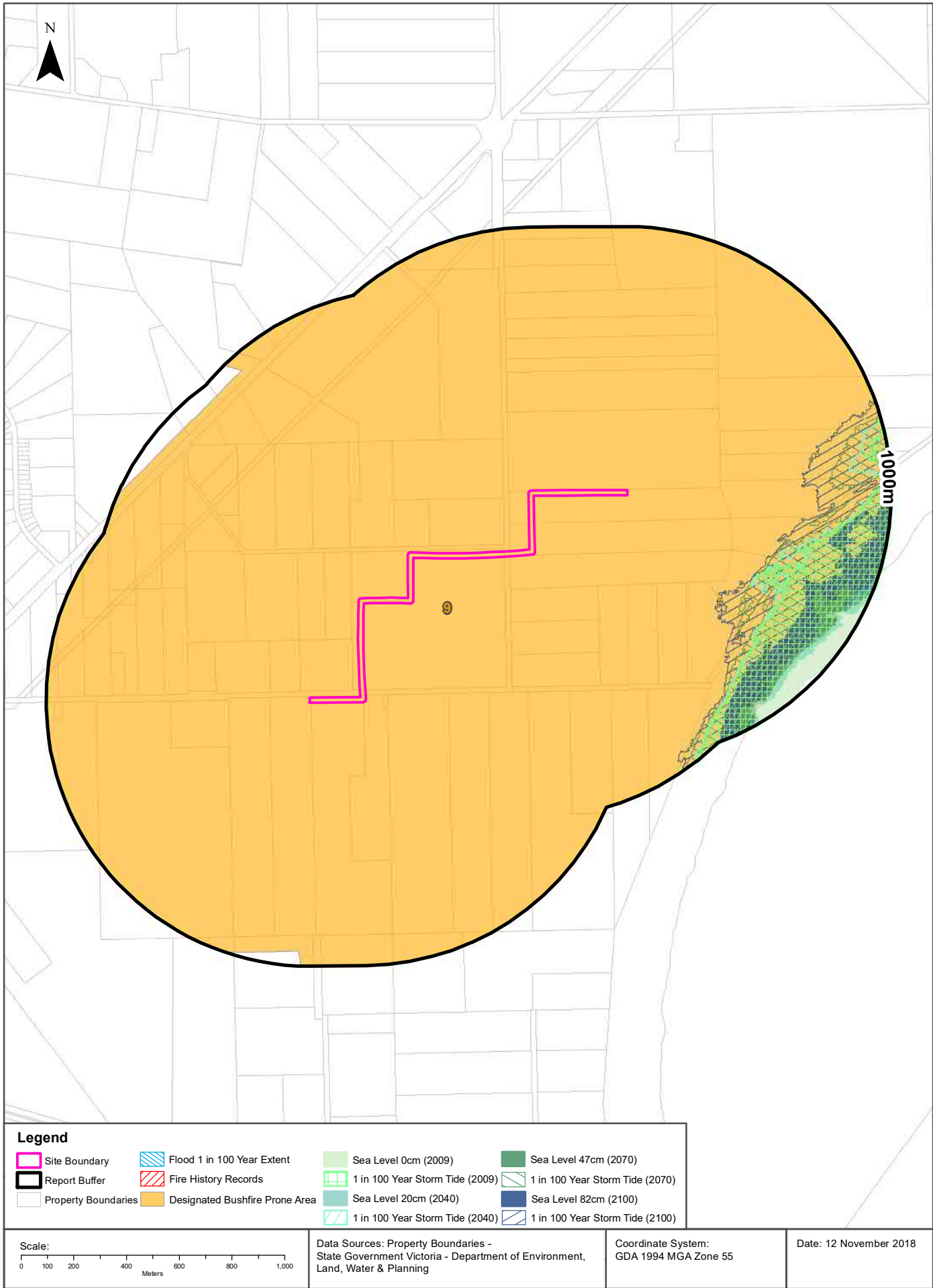
Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2007, within the dataset buffer:

Map Id	Distance	Direction
1014158	0m	Onsite
1008871	255m	South East
1009283	289m	North East
987425	687m	South East
1007662	705m	North East
989903	764m	South East

Cultural Heritage Sensitivity Data Custodian: State Government Victoria - Dept of Planning and Community Development  
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Natural Hazards

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
9	Designated Bushfire Prone Area	LEGL./17-396	MORNINGTON PENINSULA	02/06/2017	0m	Onsite

Bushfire Prone Area Data Custodian: State Government Victoria - Dept of Transport, Planning & Local Infrastructure  
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## Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
N/A	No records within buffer									

Fire History Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records within buffer					

Flood Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

## Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	504m	East
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	568m	North East
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	572m	East
Current (2009) inundation to 1-in-100 year storm tide level	575m	East
Projected 82cm sea level rise by 2100	736m	East
Projected 47cm sea level rise by 2070	799m	East
Projected 20cm sea level rise by 2040	877m	East
Current (2009) sea level	899m	East

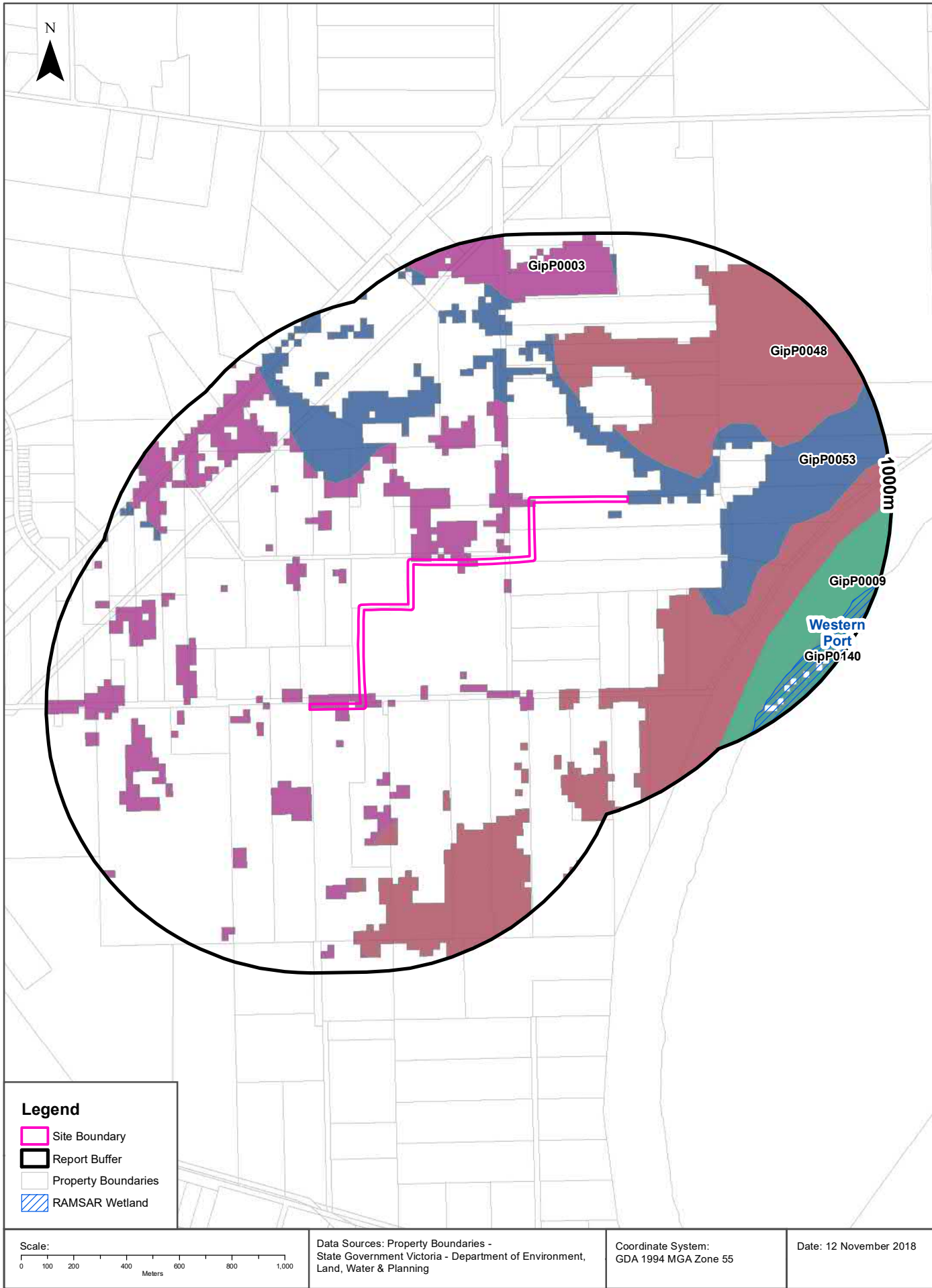
Victorian Coastal Inundation Sea Level Rise Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Ecological Constraints - Native Vegetation 2005 & RAMSAR Wetlands

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Distance
GipP0003	Damp Sands Herb-rich Woodland	0003	Herb-rich Woodlands	Damp Sands	Gippsland Plain	Vulnerable	Common	0m
GipP0053	Swamp Scrub	0053	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	0m
GipP0048	Heathy Woodland	0048	Heathy Woodlands	Dry and/or better drained	Gippsland Plain	Least Concern	Common	172m
GipP0009	Coastal Saltmarsh	0009	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Common	728m
GipP0140	Mangrove Shrubland	0140	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Naturally Restricted	891m

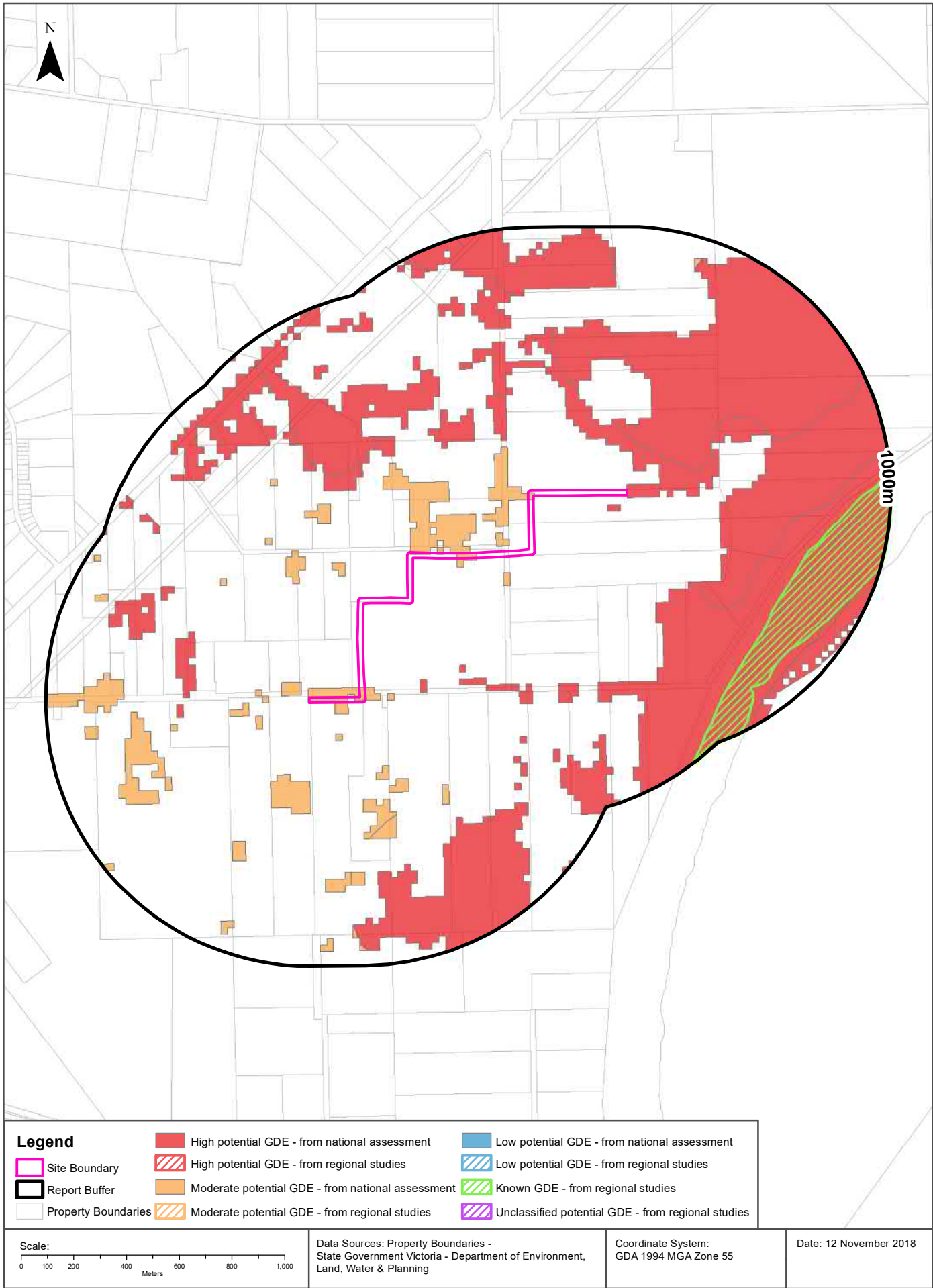
Native Vegetation Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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### RAMSAR Wetlands

What RAMSAR wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
10	Western Port	Western Port	886m	South East

RAMSAR Wetland Area Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

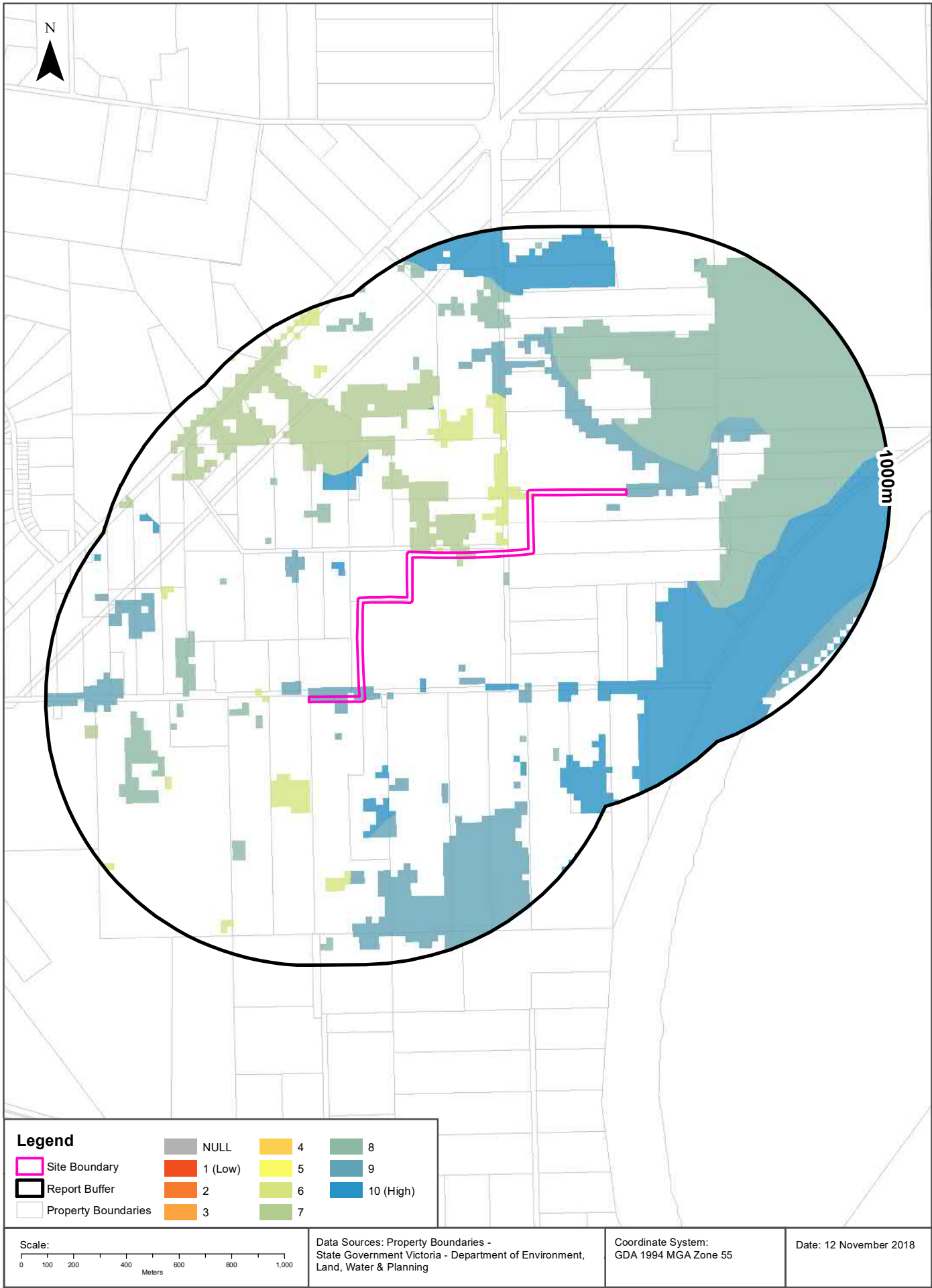
### Groundwater Dependent Ecosystems Atlas

What GDEs exist within the dataset buffer?

GDE Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		Moderate potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Aquatic		Known GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		696m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 7)

### Inflow Dependent Ecosystems Likelihood

What IDEs exist within the dataset buffer?

GDE Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		6	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		7	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	58m
Terrestrial		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	102m
Aquatic		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		696m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology  
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**LOTSEARCH**  
LOTSEARCH ENVIRO PROFESSIONAL

**Address: Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810  
(Section 8)**

**Date: 12 Nov 2018 15:07:51**

**Reference: LS004577 EP**

**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. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.



## Table of Contents

Location Confidences.....	2
Dataset Listings .....	3
Site Location Aerial .....	5
Topographic Features.....	6
Elevation Contours.....	7
EPA Records.....	8
Waste Management Facilities .....	15
Former Gasworks.....	17
Historical Business Activities.....	18
Historical Aerial Imagery & Maps .....	23
Features of Interest .....	40
Hydrogeology & Groundwater .....	42
Groundwater Boreholes .....	44
Historical Mining Activity .....	53
Geology .....	54
Soil Types.....	57
Acid Sulfate Soils .....	61
Planning Zones .....	65
Planning Overlays.....	67
Heritage.....	69
Natural Hazards .....	72
Ecological Constraints.....	75
Terms & Conditions.....	81

## 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

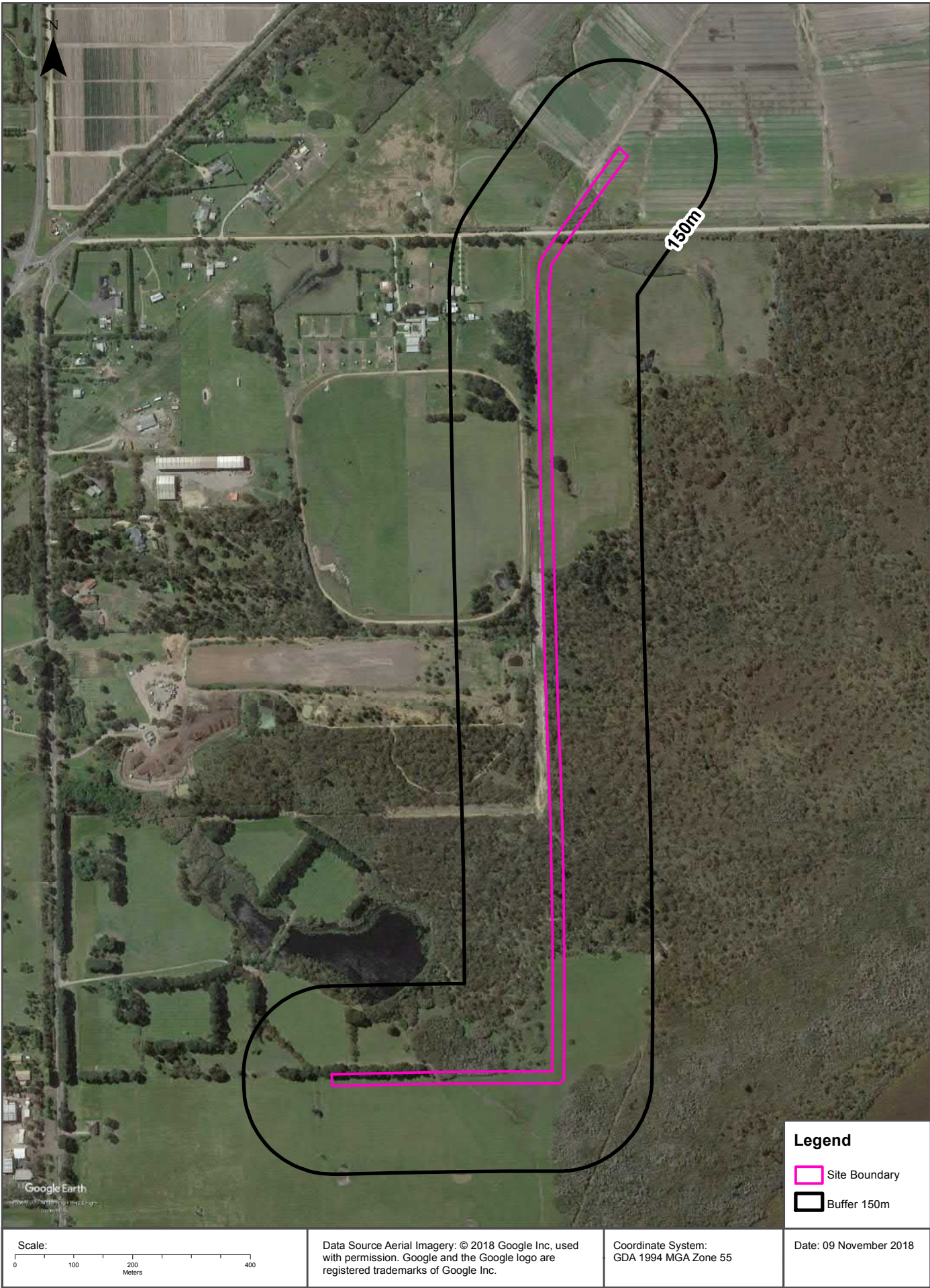
Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	08/10/2018	08/10/2018	Quarterly	-	-	-	-
Current Priority Sites	Environment Protection Authority (Vic)	17/10/2018	31/08/2018	Monthly	1000	0	1	1
Former Priority Sites & other Pollution Notices	Environment Protection Authority (Vic)	19/10/2018	19/10/2018	Monthly	1000	0	2	3
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	1	1
Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	19/09/2018	Monthly	1000	0	1	1
Former Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
Works Approvals	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	06/11/2018	07/03/2017	Quarterly	1000	0	1	1
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000	0	3	3
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	23/10/2018	23/10/2018	Quarterly	1000	0	0	0
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	06/09/2018	06/09/2018	Quarterly	1000	0	1	1
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000	0	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 1960-62 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1960-62 (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
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	2	9
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	2	-	-
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	30/10/2018	01/10/2018	Quarterly	2000	0	1	58
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	27/07/2018	17/02/2010	As required	2000	0	0	12
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	18/10/2018	20/07/2018	As required	1000	0	0	0
Geological Units 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	3	-	5
Geological Structures 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	1	1	1
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000	2	2	2
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000	0	0	1
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	1	1	9
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	2	2	4
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	0	0
Cultural Heritage Sensitivity	State Government Victoria - Department of Planning and Community Development	12/10/2018	12/10/2018	Quarterly	1000	2	2	9
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	12/10/2018	16/05/2018	Quarterly	1000	1	1	1
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	28/06/2018	Quarterly	1000	0	0	1
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	18/11/2014	Quarterly	1000	0	0	0
Victorian Coastal Inundation Sea Level Rise	Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000	0	0	8
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000	3	3	7
RAMSAR Wetlands	State Government Victoria - Department of Environment, Land, Water & Planning	28/03/2017	24/06/2013	None planned	1000	0	0	1
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	2	2	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	2	4	8

Aerial Imagery 2017

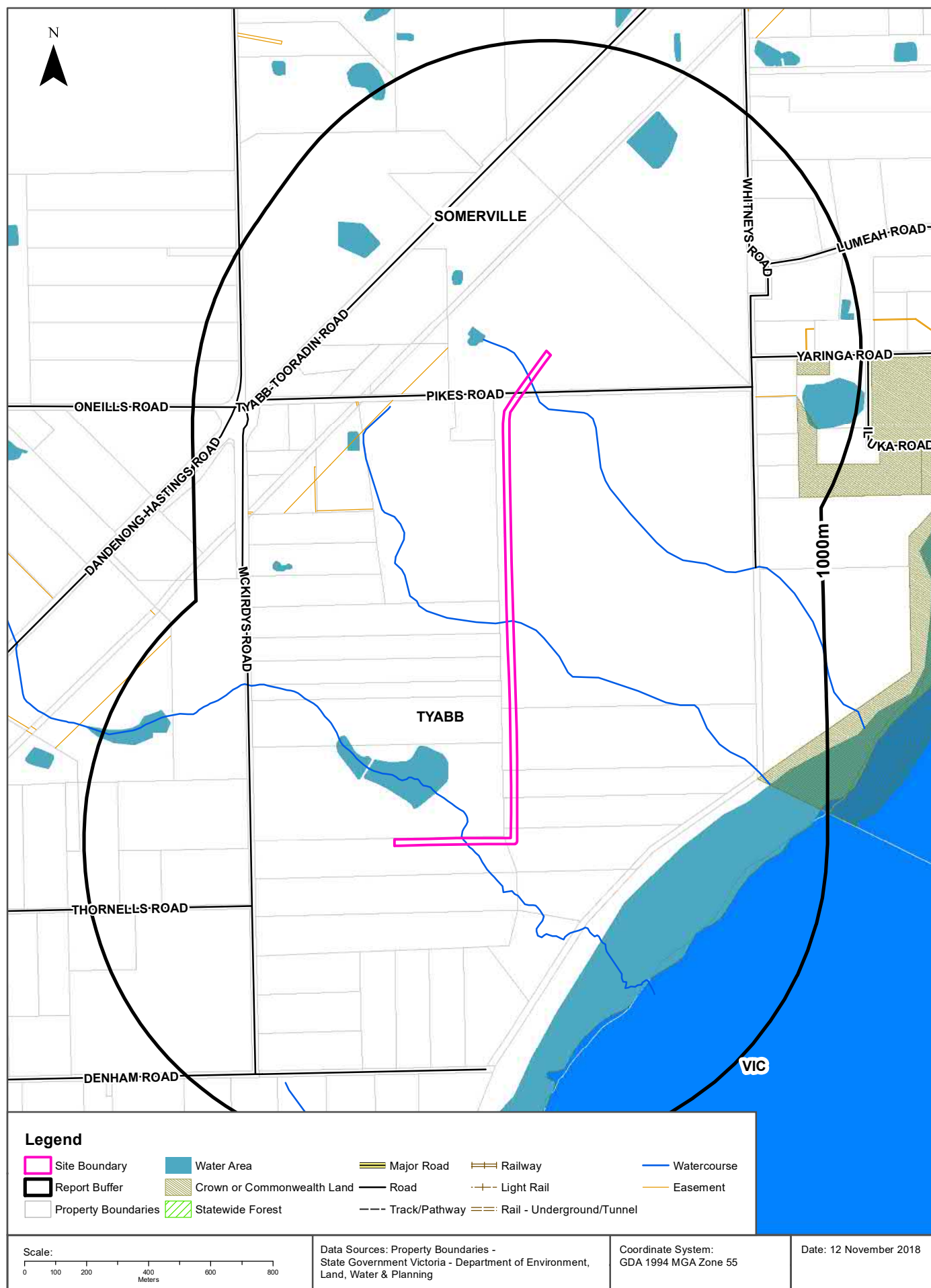
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





# Topographic Data

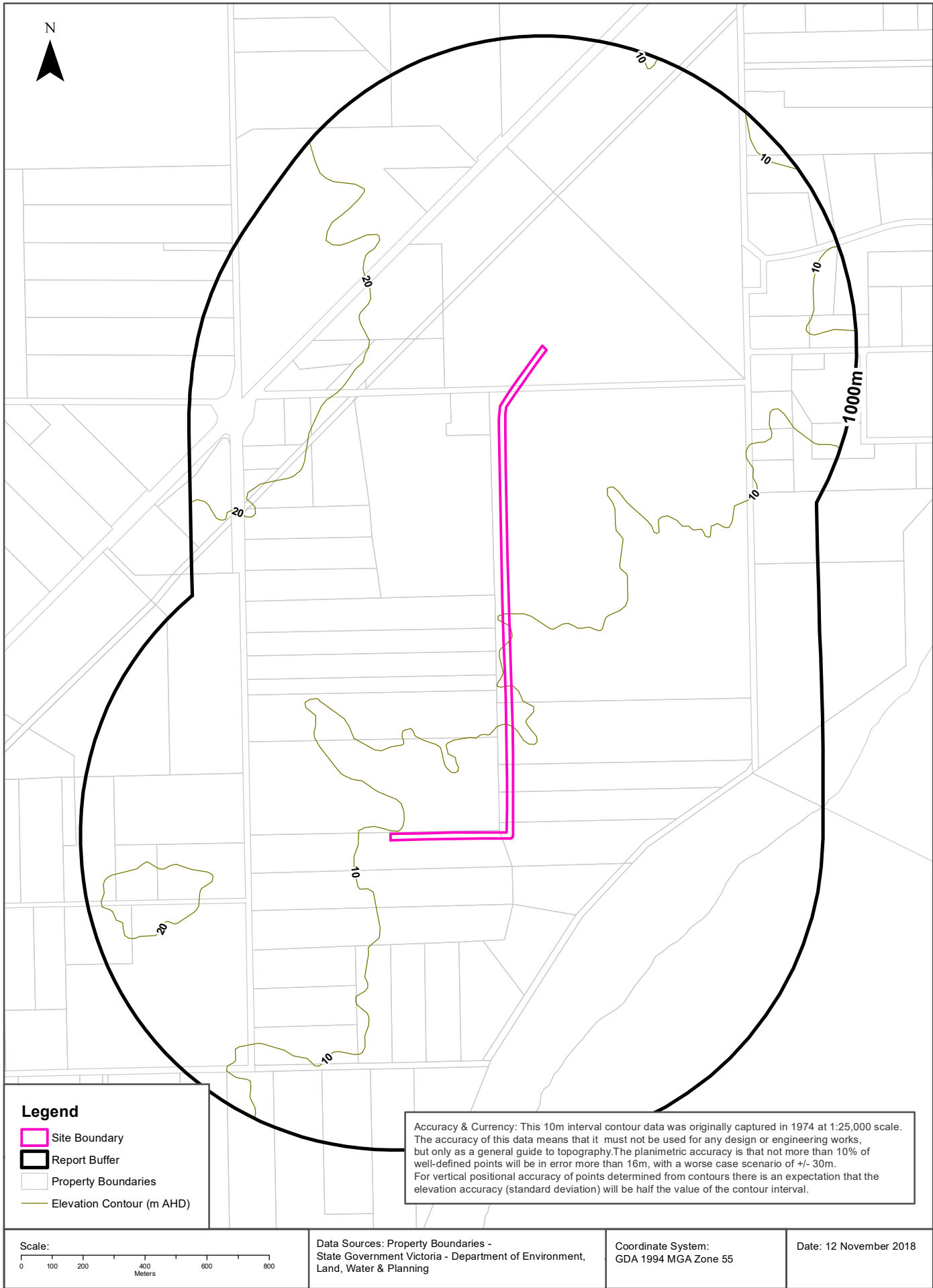
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





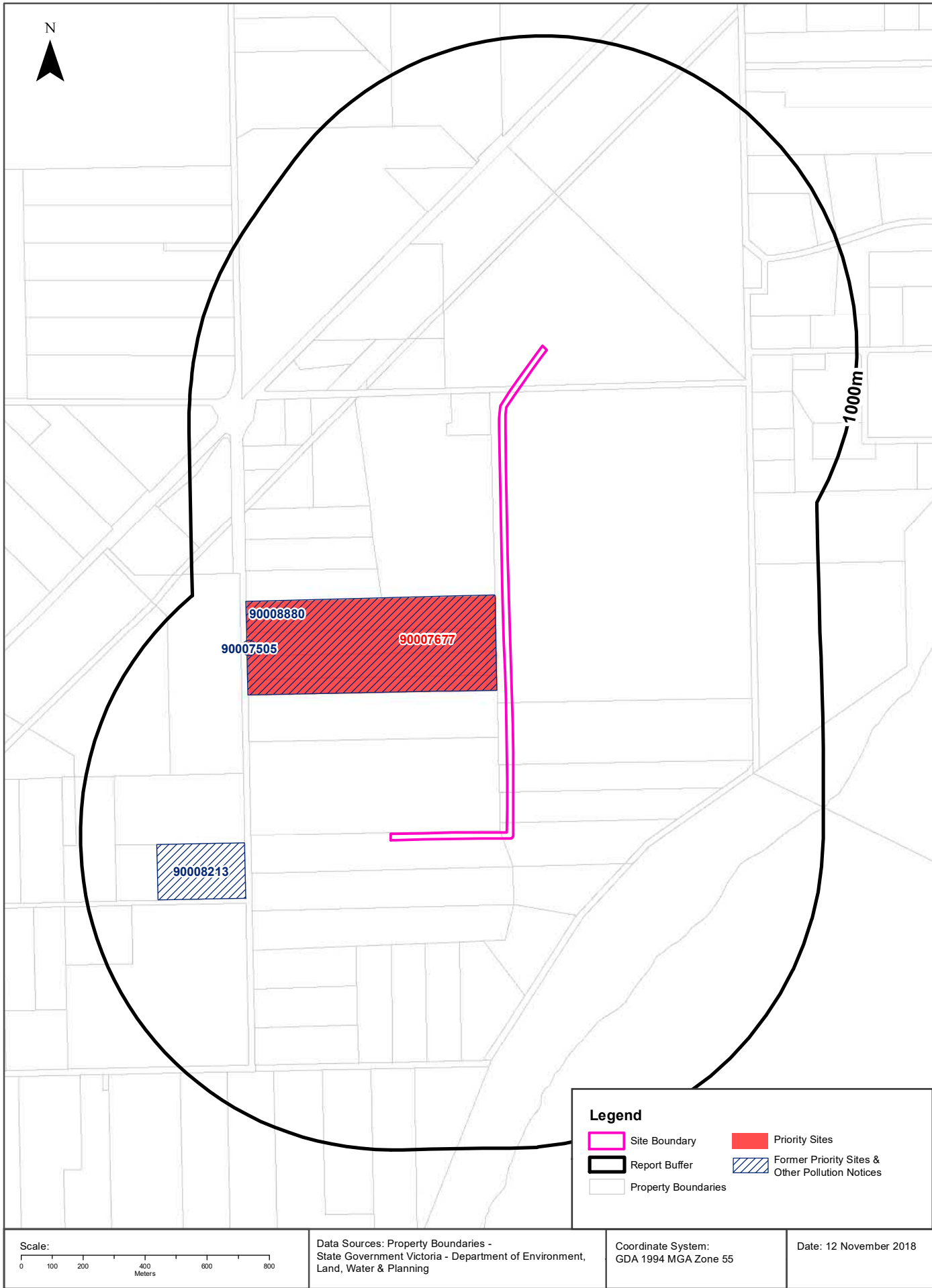
# Elevation Contours (m AHD) 10m Interval at 1:25,000

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



# EPA Records - Priority Sites & Pollution Notices

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
90007677	15-21 MCKIRDYS RD	TYABB	Former Landfill. Requires ongoing management.	Premise Match	24m	West

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

### Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

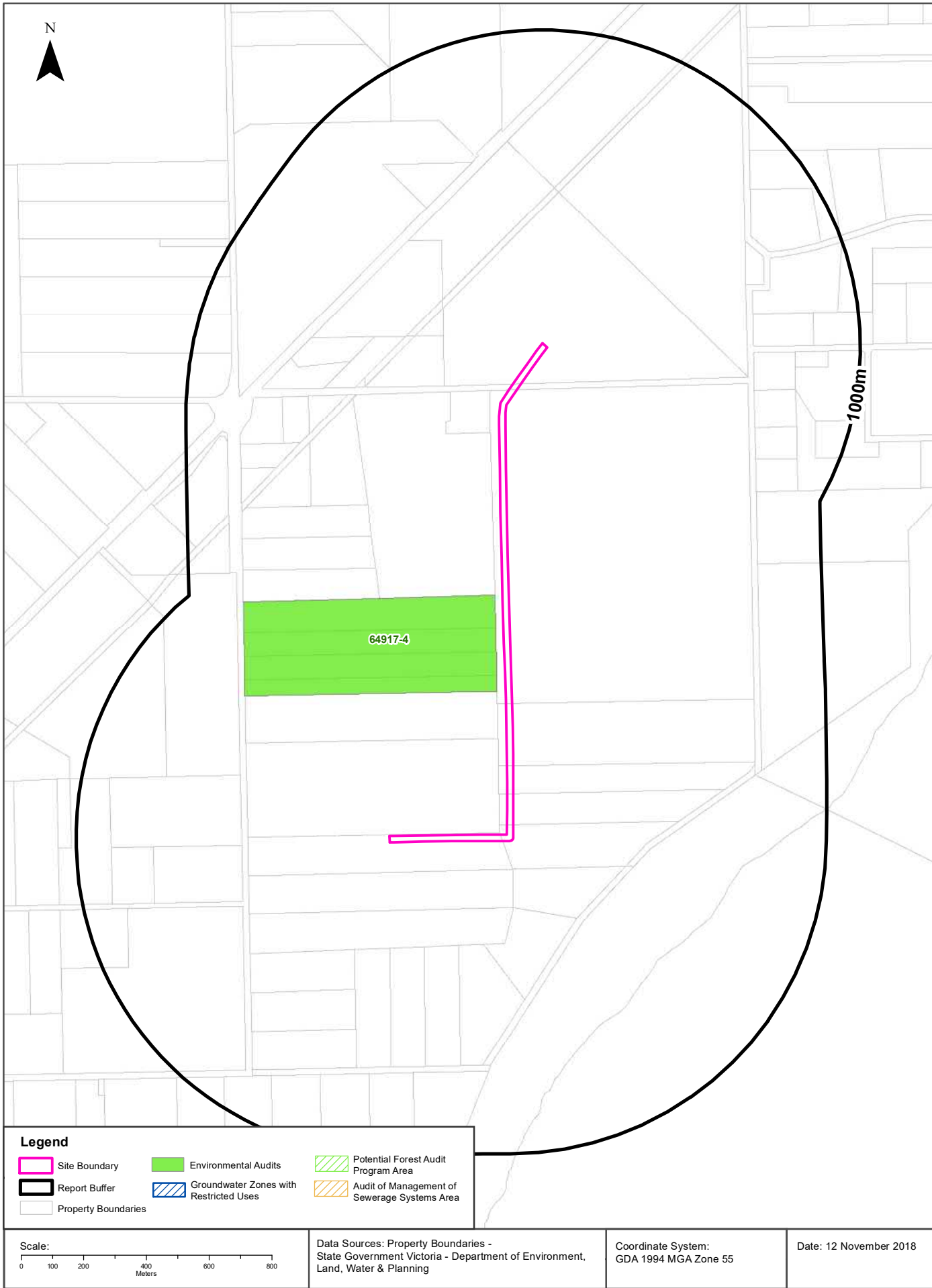
**Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.**

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
90008880	Monitoring, Rehab' & Aftercare PAN	MORNINGTON PENINSULA SHIRE COUNCIL [TYABB]	15-21 MCKIRDYS RD / TYABB VIC 3913	TYABB	Current Pollution Notice		13/07/2018	Premise Match	24m	West
90007505	Monitoring, Rehab' & Aftercare PAN	MORNINGTON PENINSULA SHIRE COUNCIL [TYABB]	15-21 MCKIRDYS RD	TYABB	Current Pollution Notice		07/06/2018	Premise Match	24m	West
90008213	Minor Works PAN	AUSTRALIAN GROWING SOLUTIONS PTY LTD	12 MCKIRDYS RD TYABB VIC 3913	TYABB	Previous Pollution Notice		20/10/2017	Premise Match	472m	South West

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

EPA Records - Audit Reports & GQRUZ

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Loc Conf	Distance	Direction
64917-4	8005111	15-21 MCKIRDYS RD, TYABB VIC 3913 15- 21 MCKIRDYS RD	15-21 MCKIRDYS RD, TYABB VIC 3913 15-21 MCKIRDYS RD, TYABB	TYABB	11/01/2017	Premise Match	24m	West

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

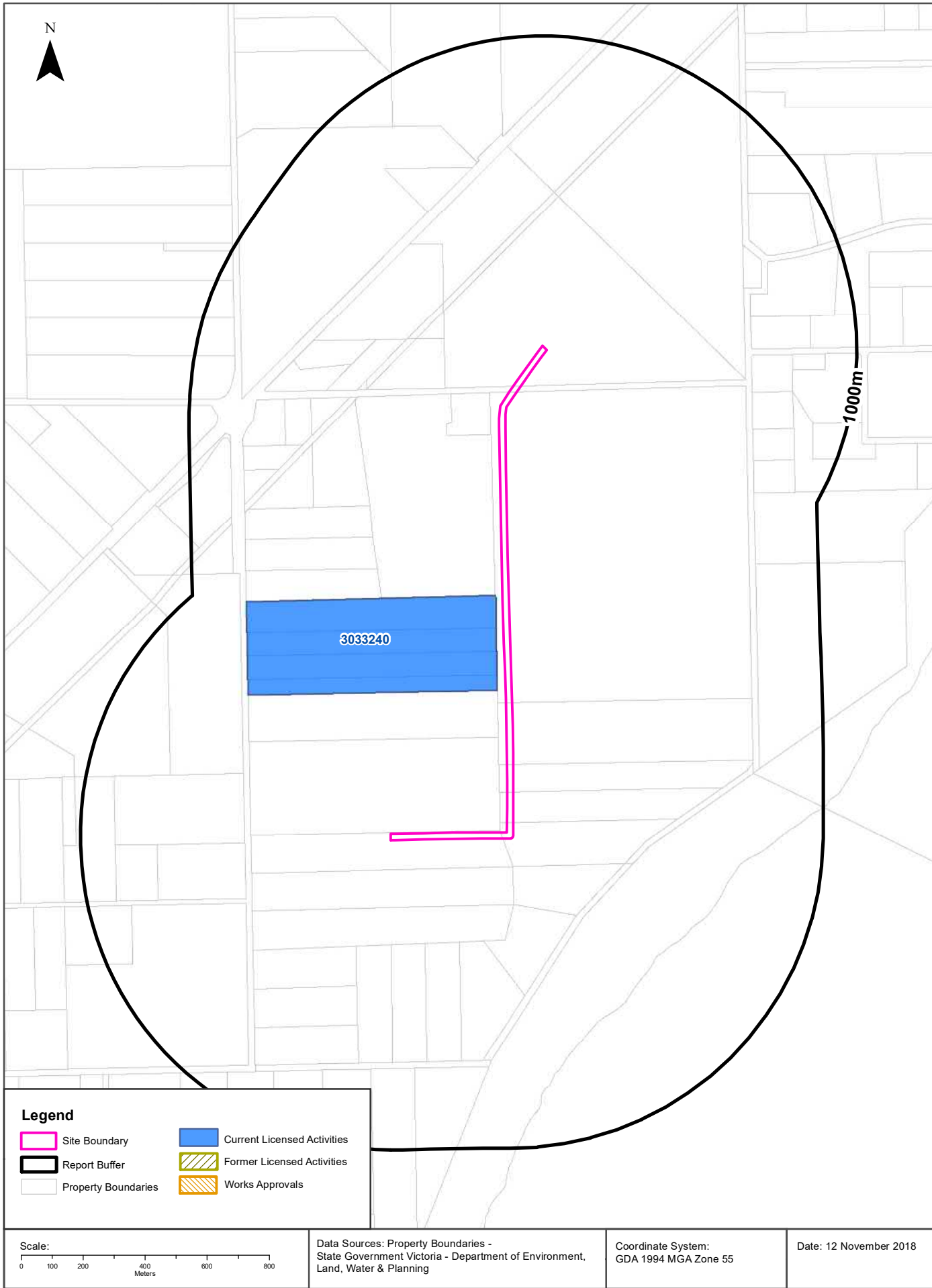
Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Loc Conf	Distance	Direction
N/A	No records in buffer						

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

# EPA Records - Licensed Activities & Works Approvals

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
3033240	74219	Amalgamated licence	MORNINGTON PENINSULA SHIRE COUNCIL	70422	15-21 MCKIRDYS RD	TYABB VIC 3913	A05 Landfills; A07 Composting	Premise Match	24m	West

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer						

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

## EPA Works Approvals

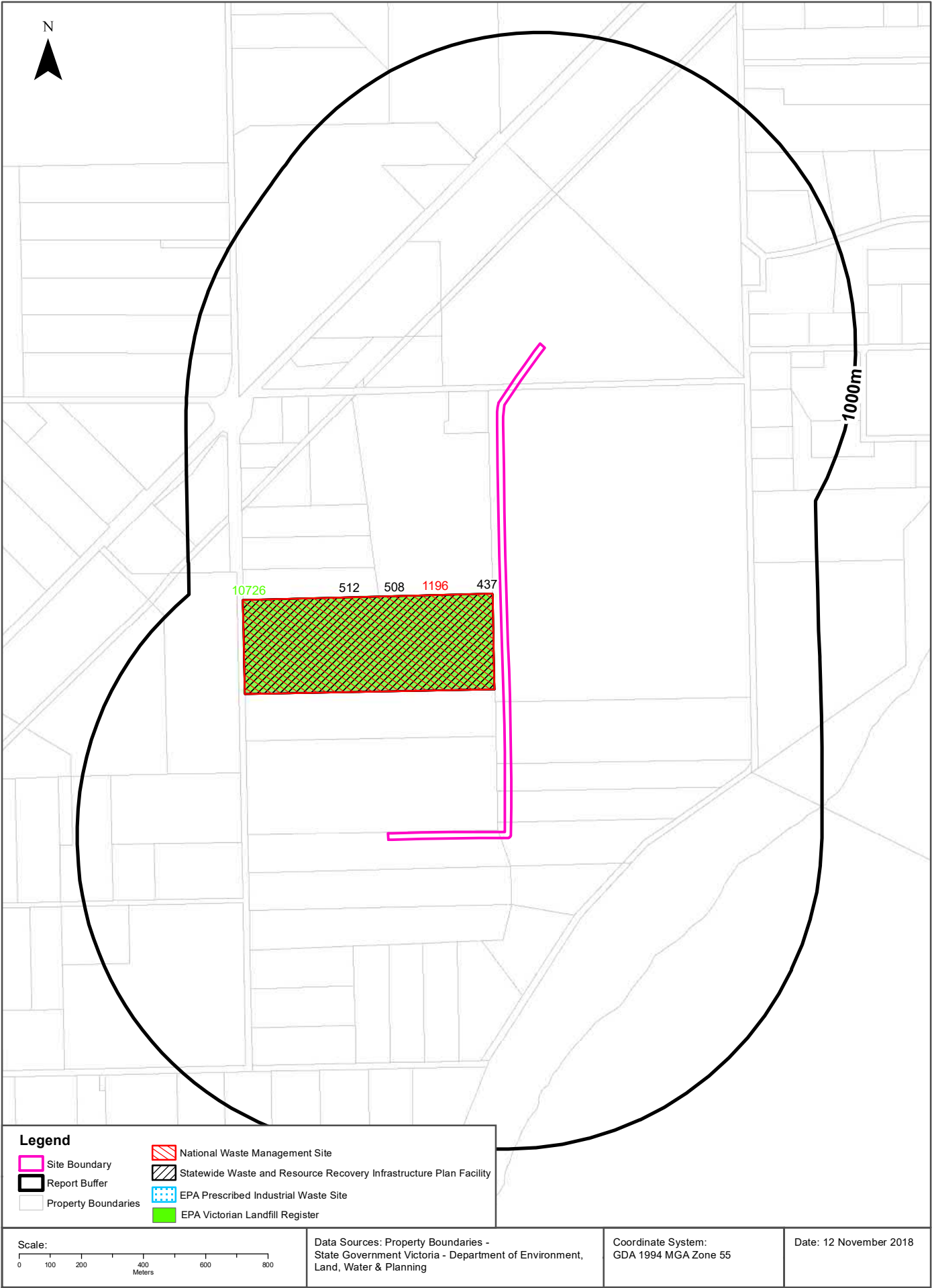
EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
N/A	No records in buffer								

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



## Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### 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
1196	Mornington Peninsula Shire Council	Municipal Tip	19 McKirdys Road	Hastings	Landfill	Operational				Premise Match	24m	West

Waste Management Facilities Data Source: Australian Government Geoscience Australia

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### Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
437	Mornington Peninsula Shire Council	Tyabb Landfill - ES469	19 McKirdy's rd	Hastings	Landfill	Putrescible Landfill	Premise Match	24m	West
508	Mornington Peninsula Shire Council	Tyabb Transfer Station	21 McKirdys Rd	Tyabb East	Municipal Waste	MSW Transfer station	Premise Match	24m	West
512	Mornington Peninsula Shire Council	Mornington Peninsula Shire Council	19 McKirdy's rd	Tyabb	Organics	Garden Waste	Premise Match	24m	West

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

### EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste sites within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist' (m)	Direct
N/A	No records in buffer									

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

### EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist' (m)	Direction
10726	MORNINGTON PENINSULA SHIRE COUNCIL	15-21 MCKIRDYS RD TYABB VIC 3913	Closed			As Supplied	26m	West

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)



## Former Gasworks

**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)**

### Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:

Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources

## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### 1960-62 Business Directory Records Premise or Road Intersection Matches

Records from the 1960-62 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

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

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### 1960-62 Business Directory Records Road or Area Matches

Records from the 1960-62 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.	Directory	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer				

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## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### 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				

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### 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			

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## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### 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					

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## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

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

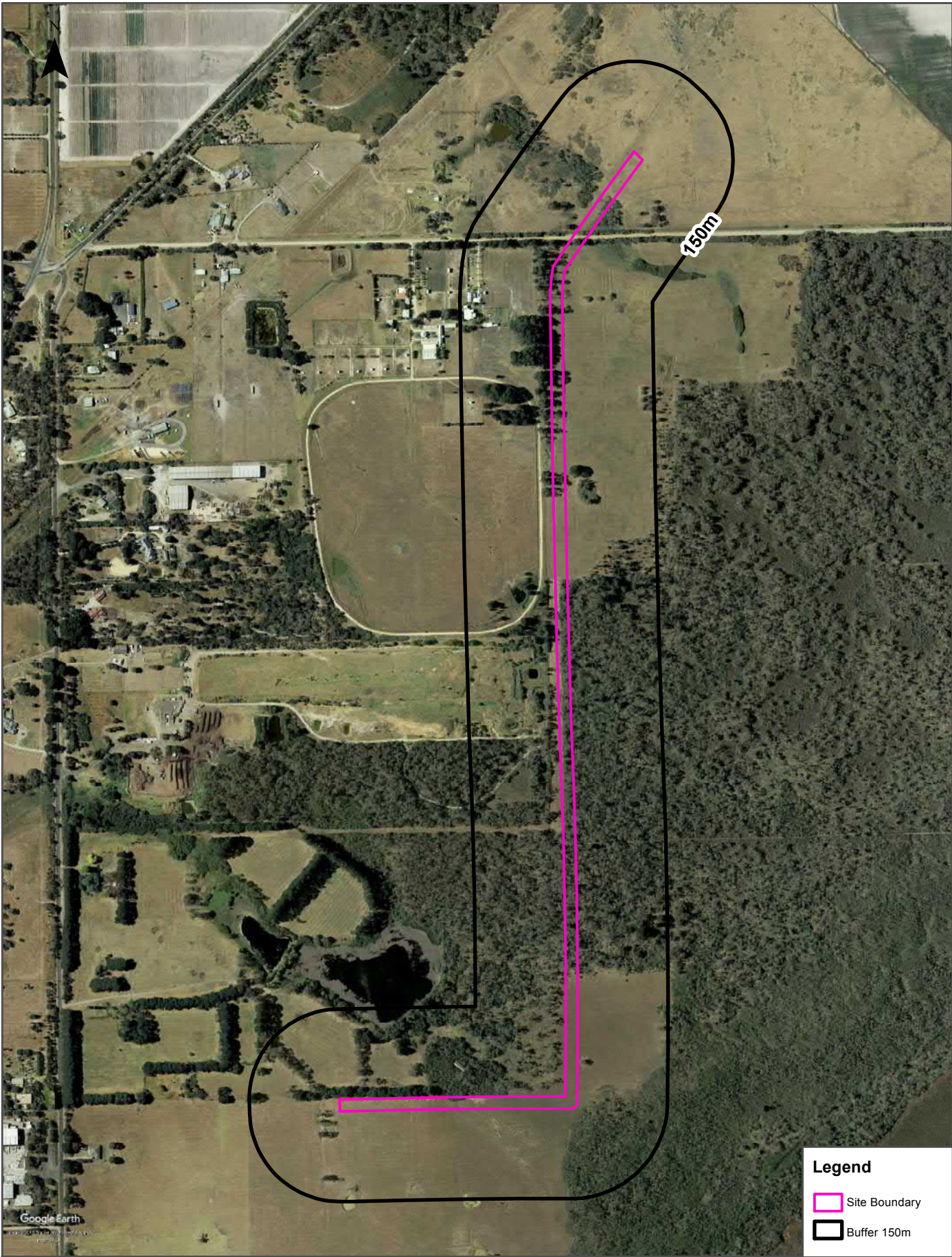
Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

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 2009

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

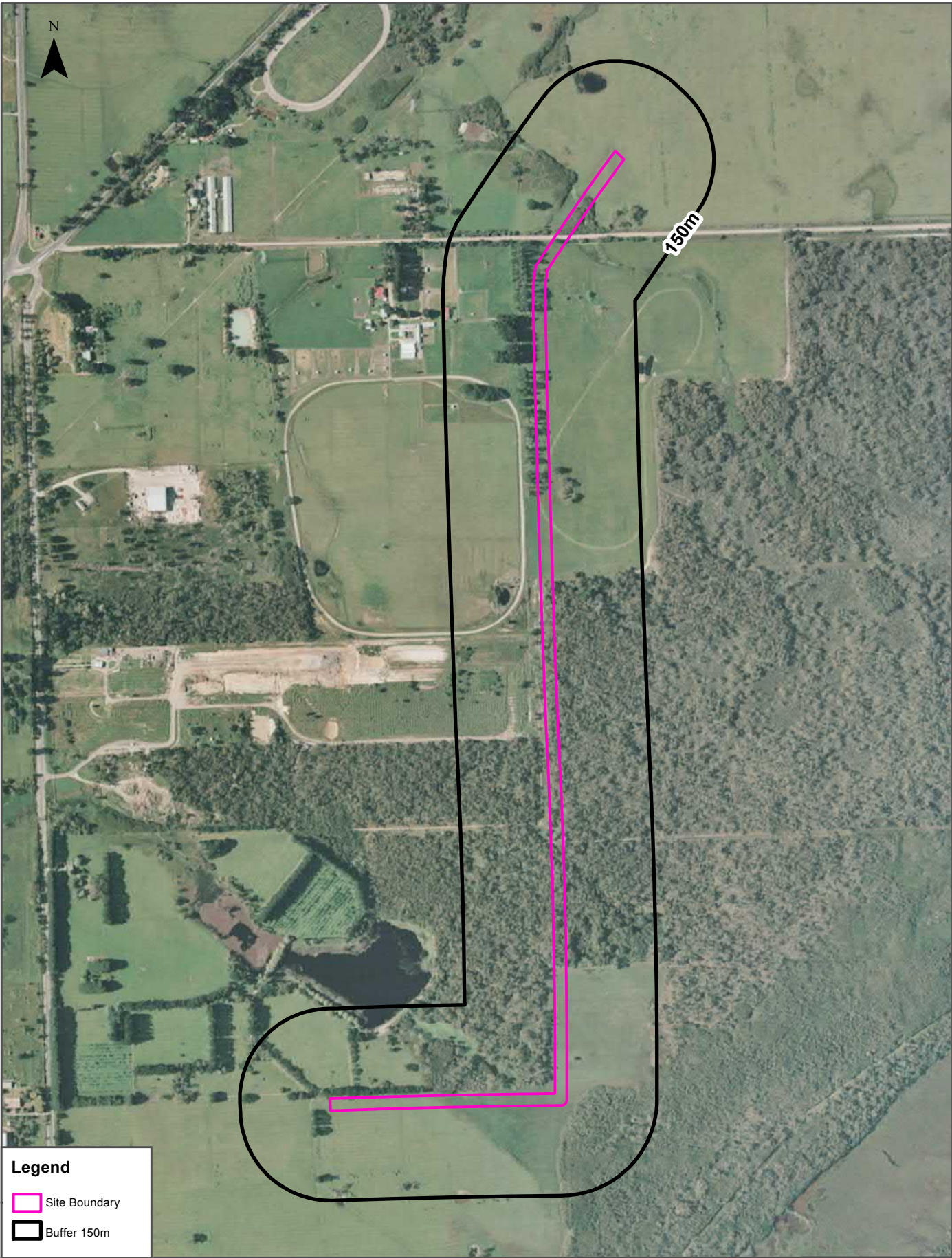


<p>Scale:</p> <p>0 100 200 400</p> <p>Meters</p>	<p>Data Source Aerial Imagery: © 2018 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.</p>	<p>Coordinate System:</p> <p>GDA 1994 MGA Zone 55</p>	<p>Date: 09 November 2018</p>
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Aerial Imagery 1989

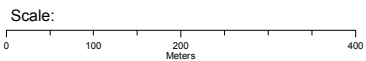
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



**Legend**

 Site Boundary

 Buffer 150m



Data Source Aerial Imagery:  
© Department of Environment, Land, Water and Planning  
(Vicmap Topographic Mapping Program)

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 09 November 2018



# Aerial Imagery 1985

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



Scale: 0 100 200 400 Meters	Data Source Aerial Imagery: © Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program)	Coordinate System: GDA 1994 MGA Zone 55	Date: 09 November 2018
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## Aerial Imagery 1977

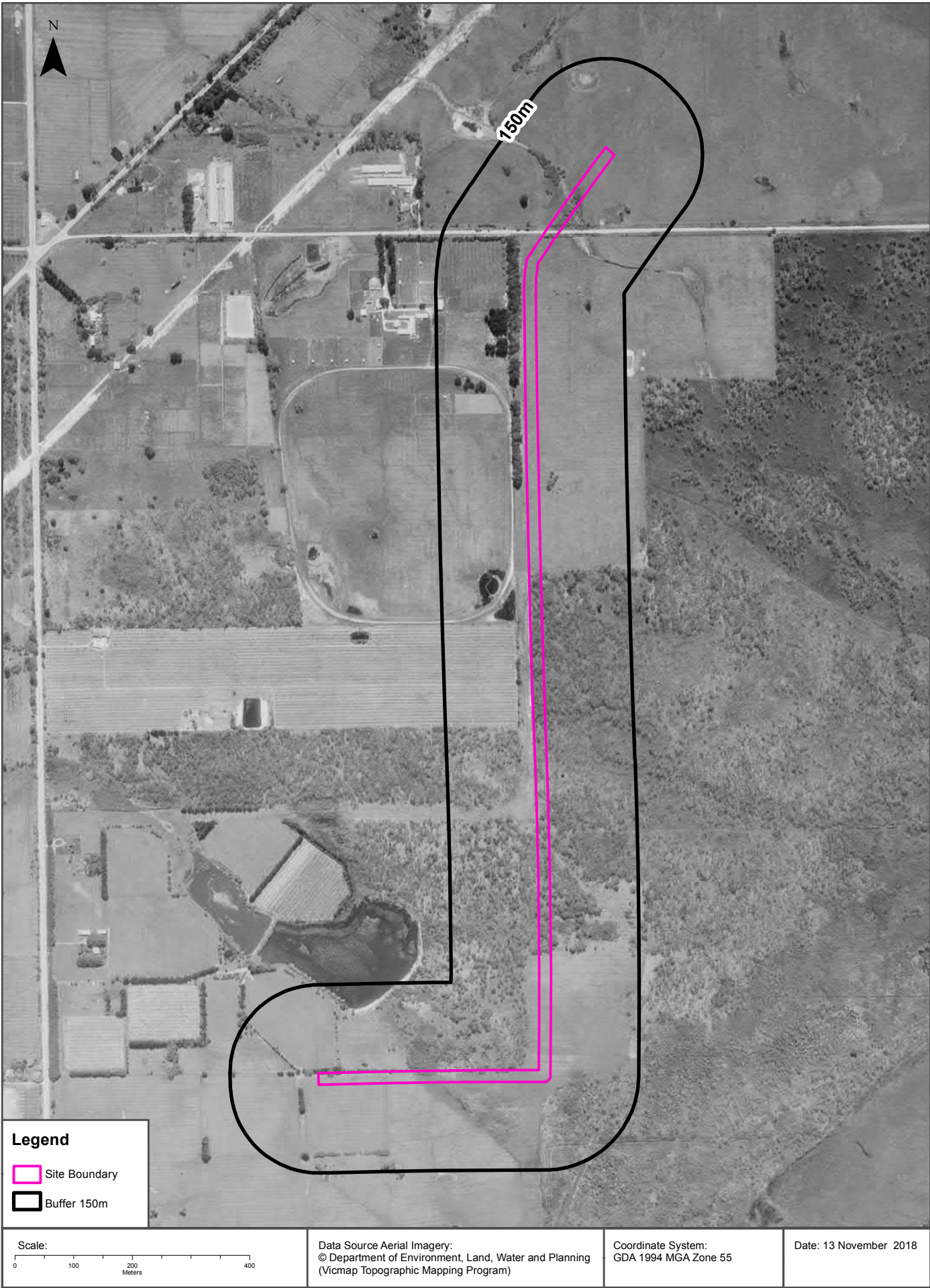
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





# Aerial Imagery 1974

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



# Aerial Imagery 1970

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





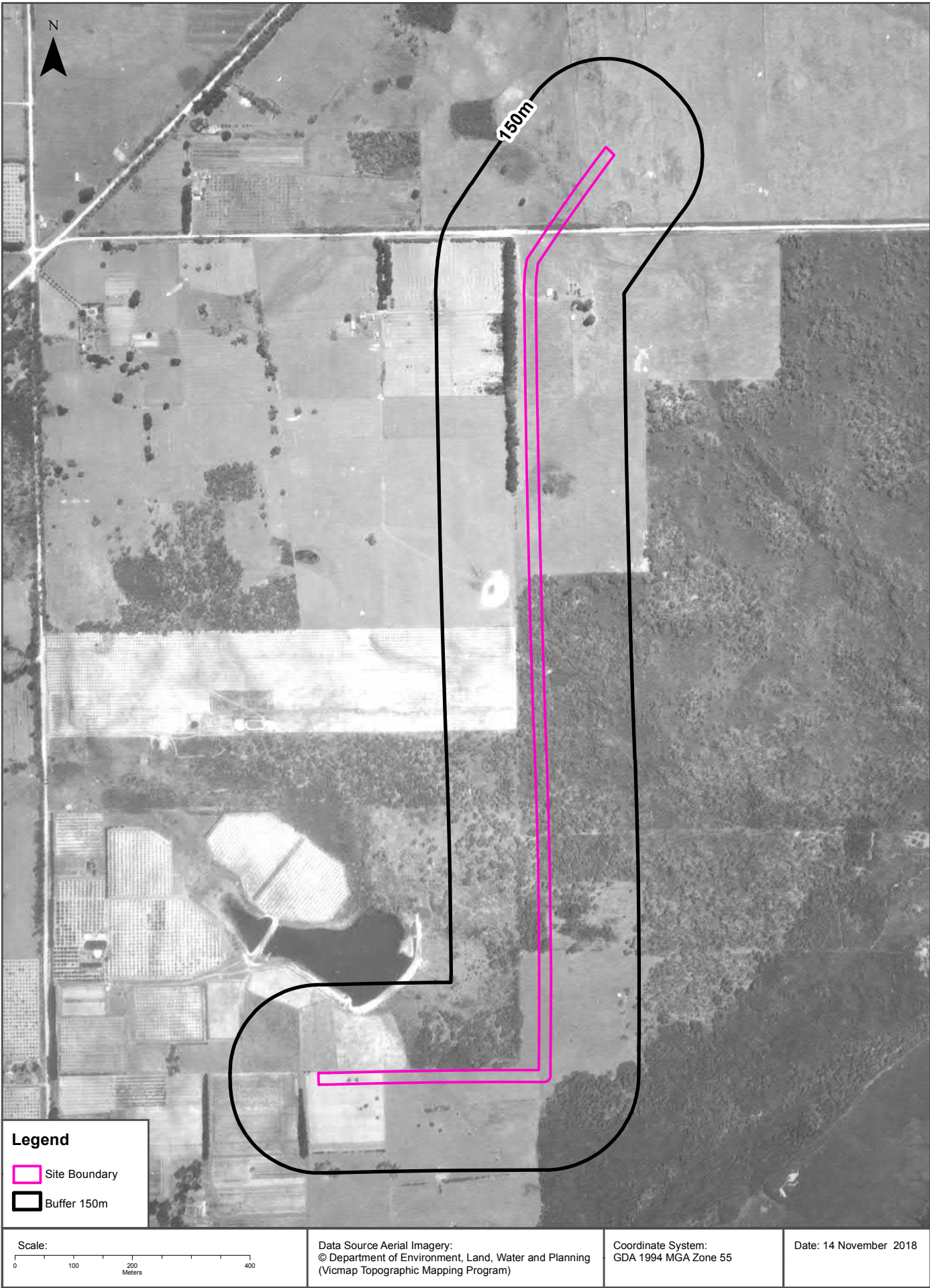
# Aerial Imagery 1970

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



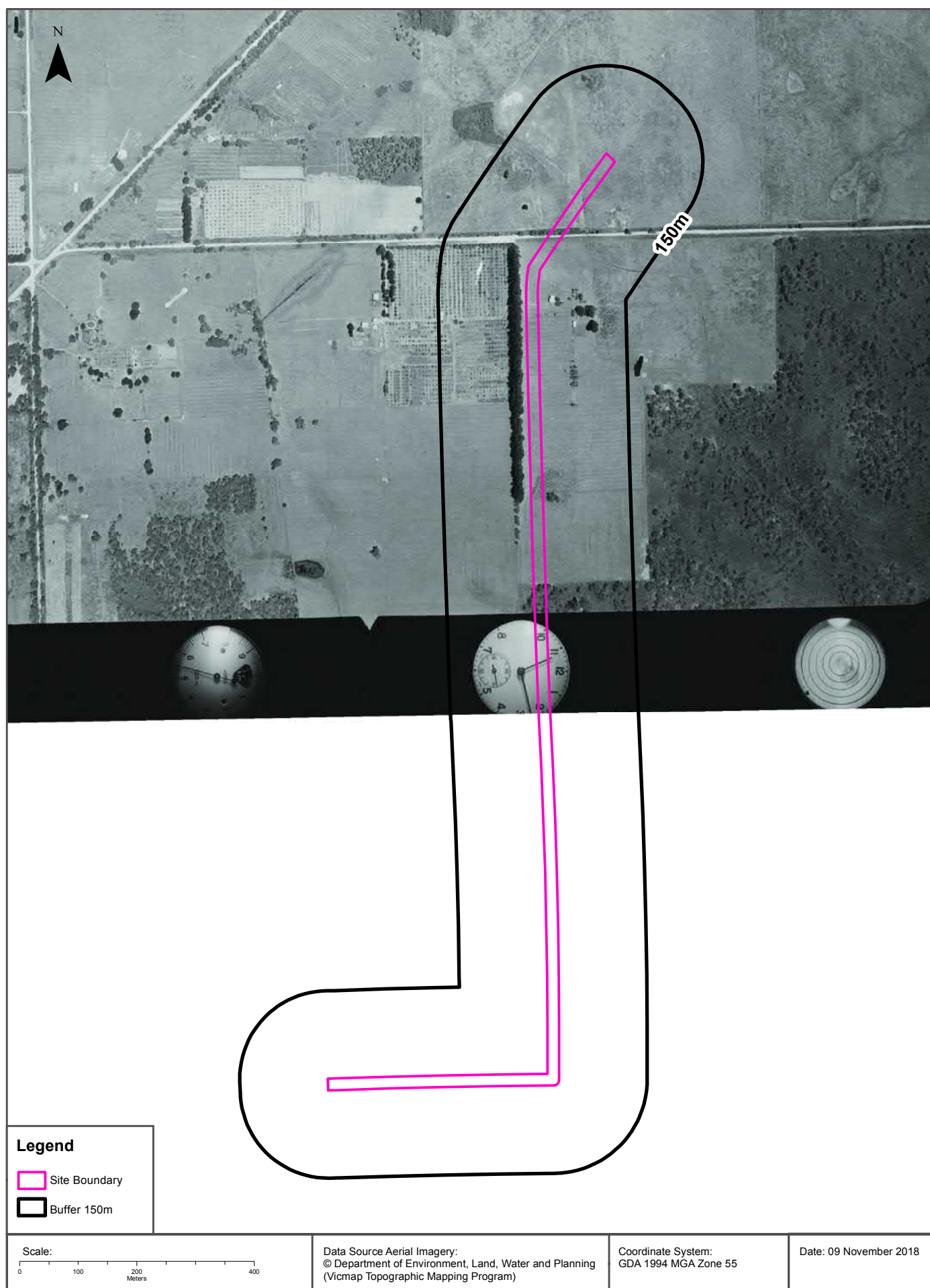
# Aerial Imagery 1962

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





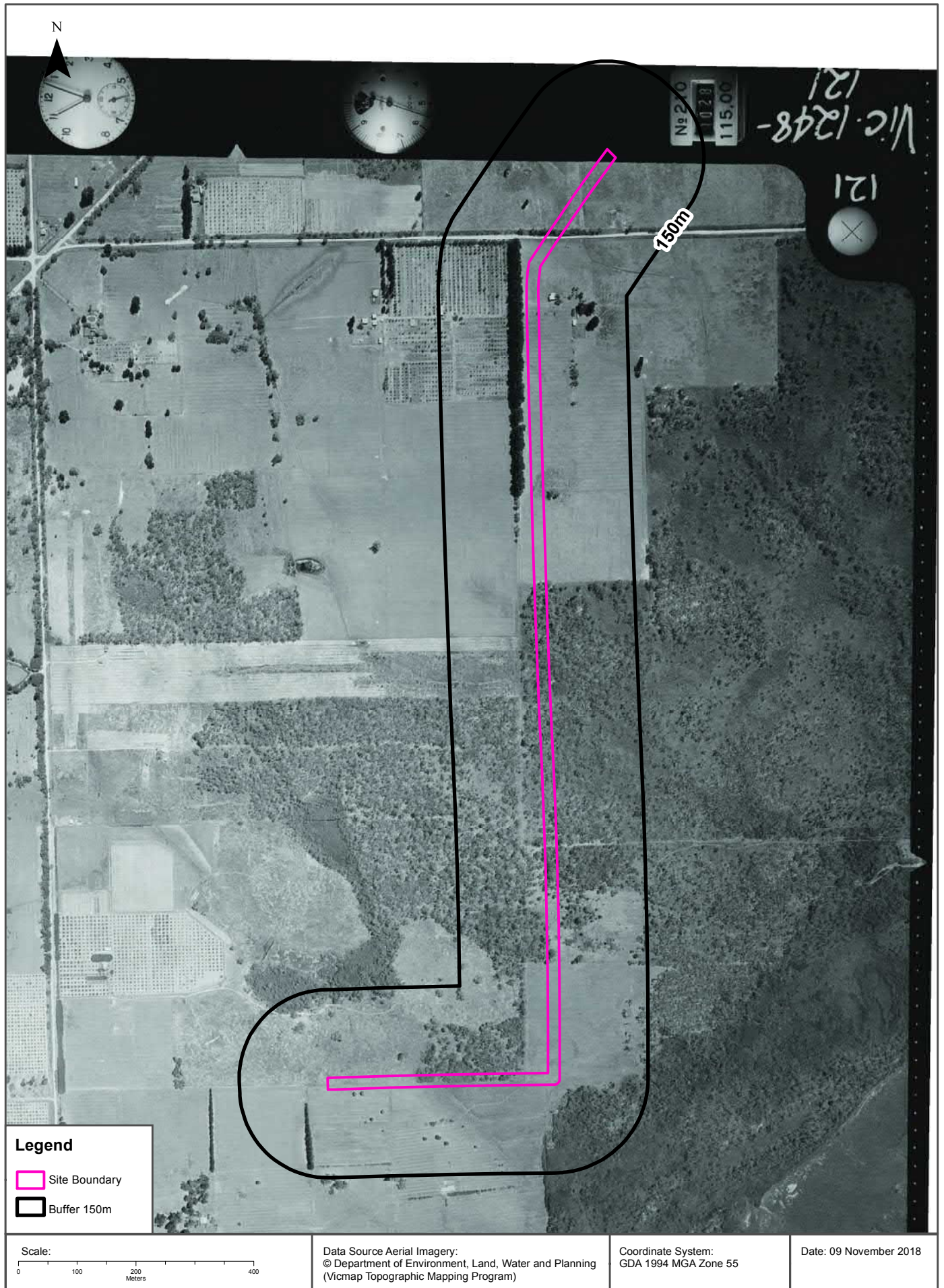
**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)**





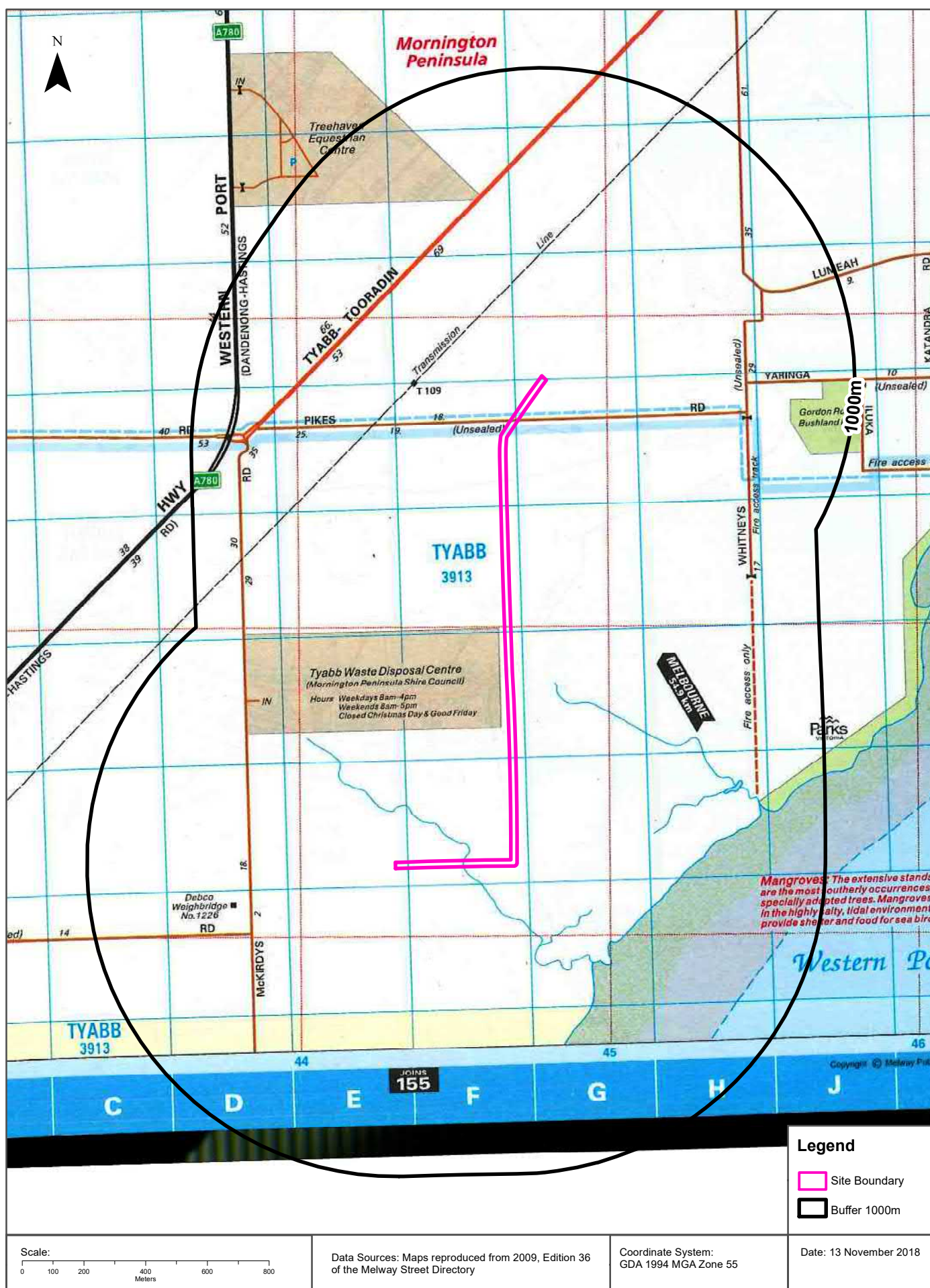
# Aerial Imagery 1957

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



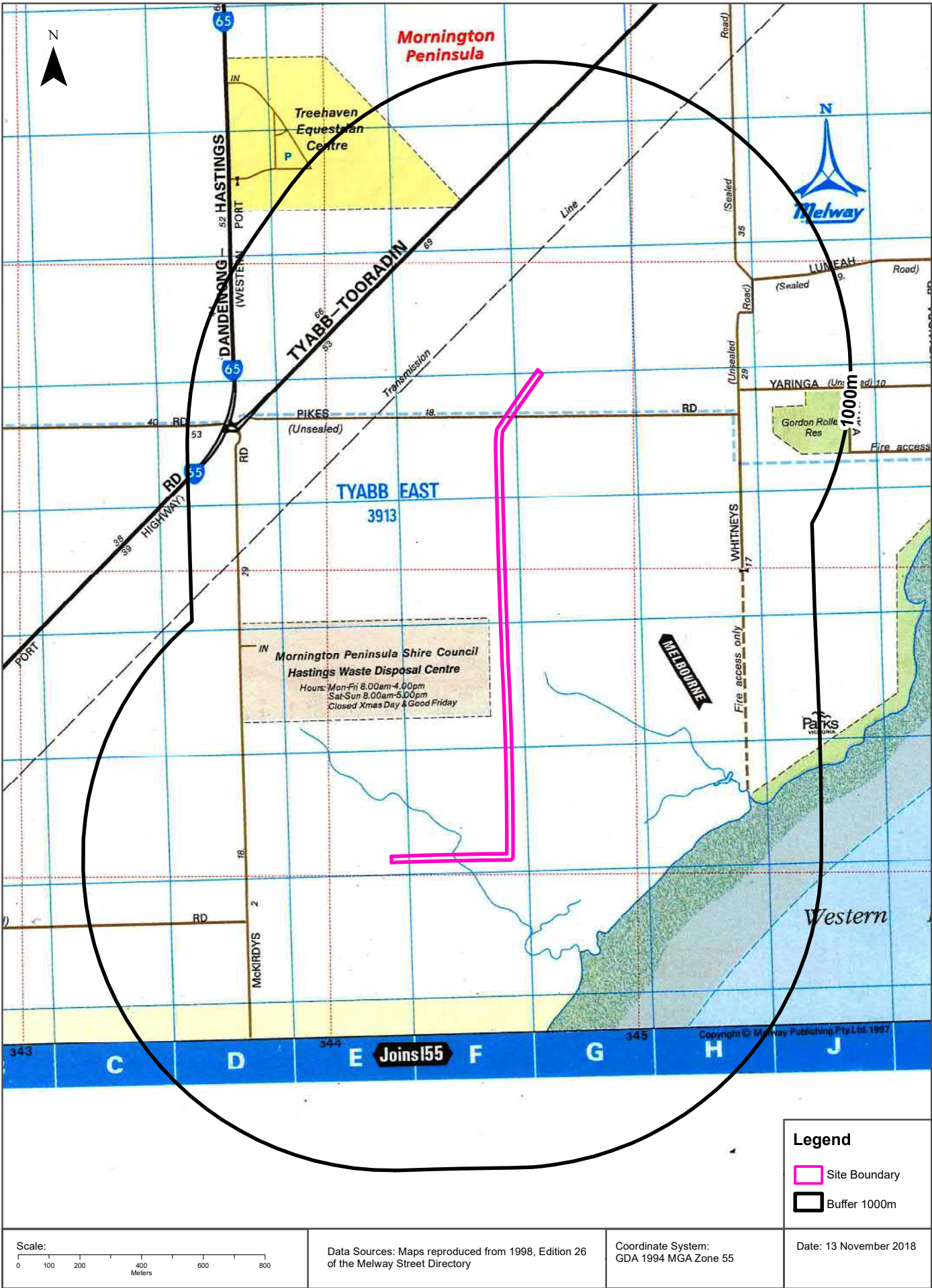


**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)**



Historical Map 1998

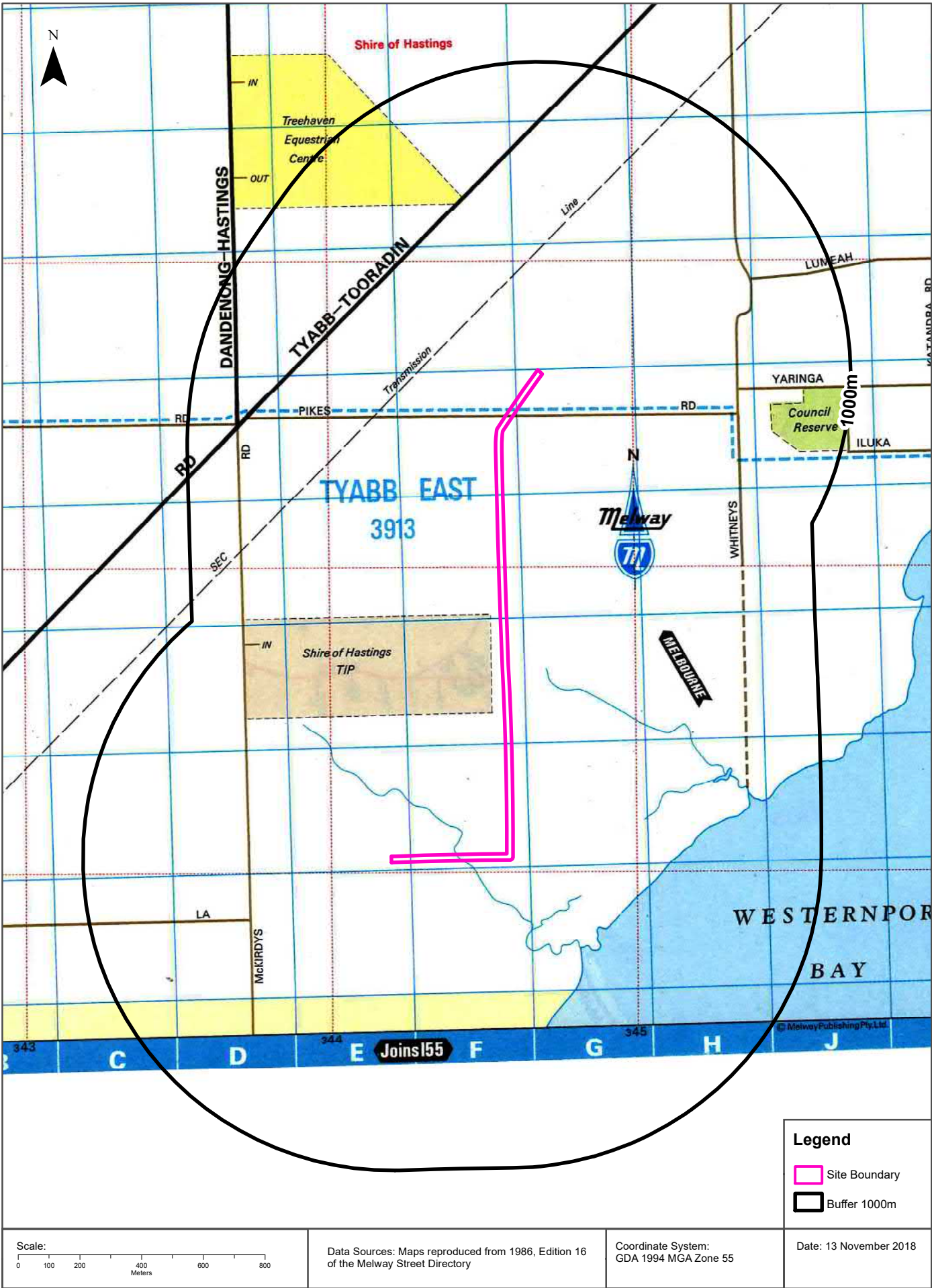
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





Historical Map 1986

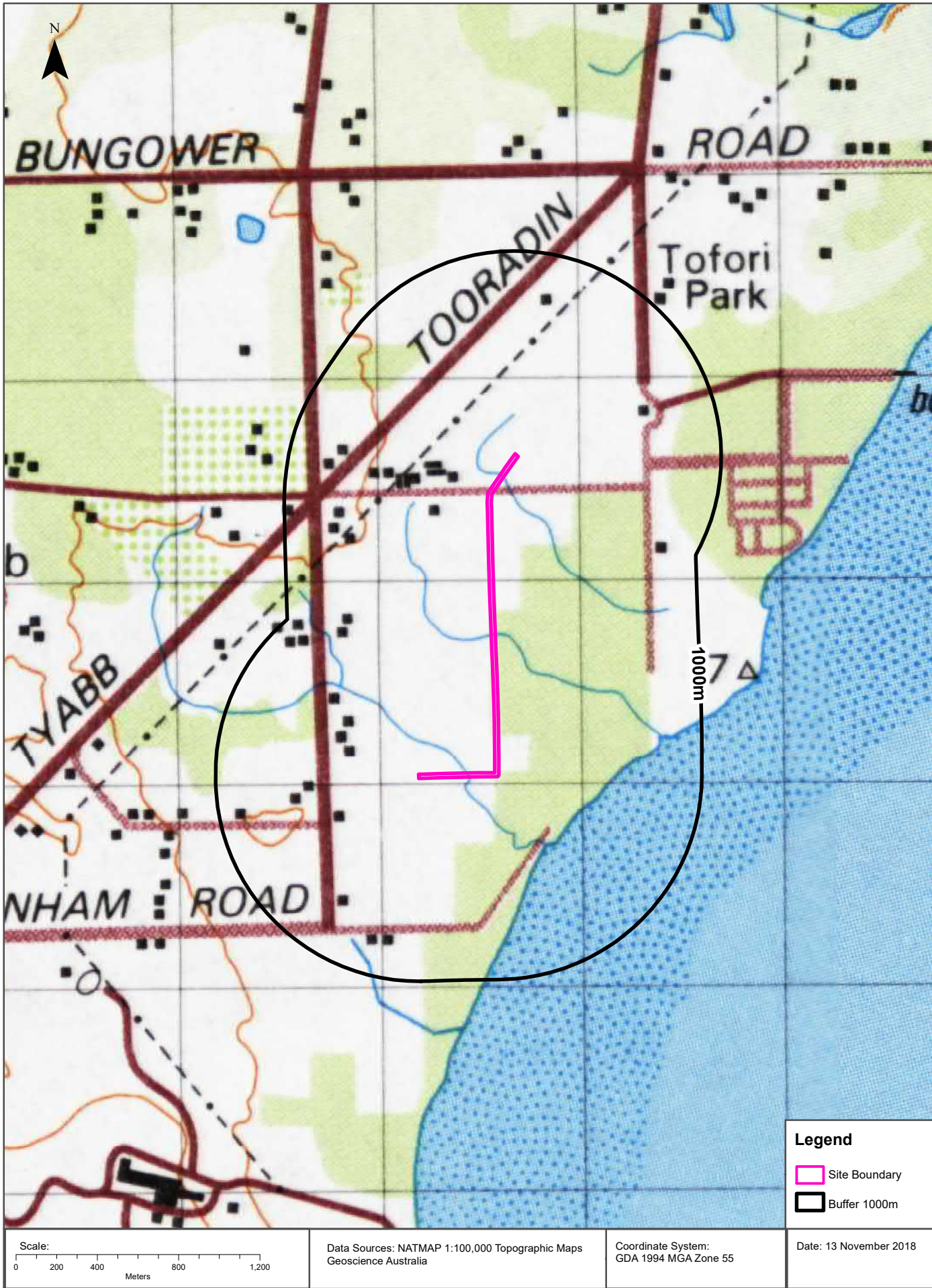
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





# Historical Map 1979

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



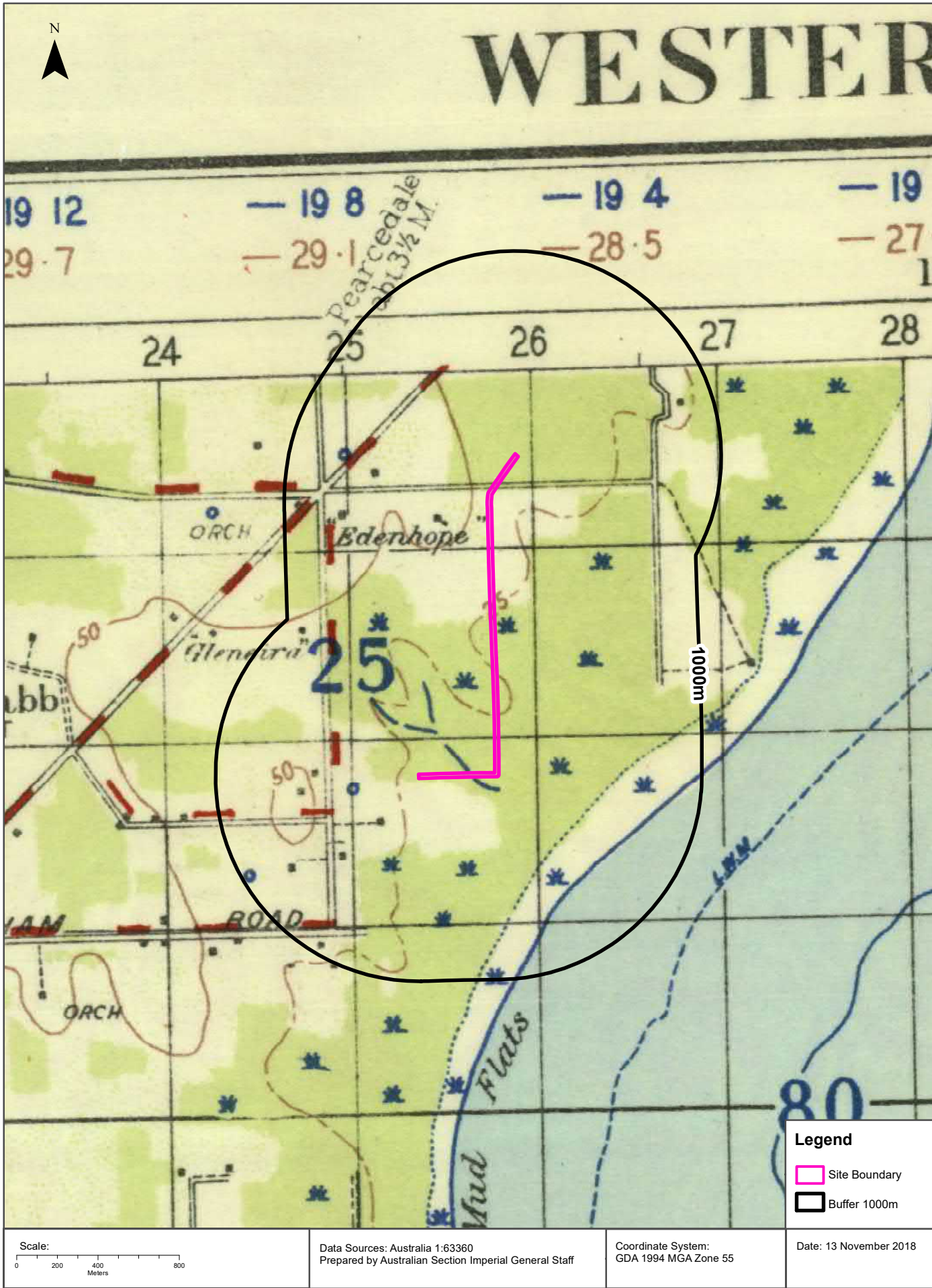


**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)**



Historical Map 1939

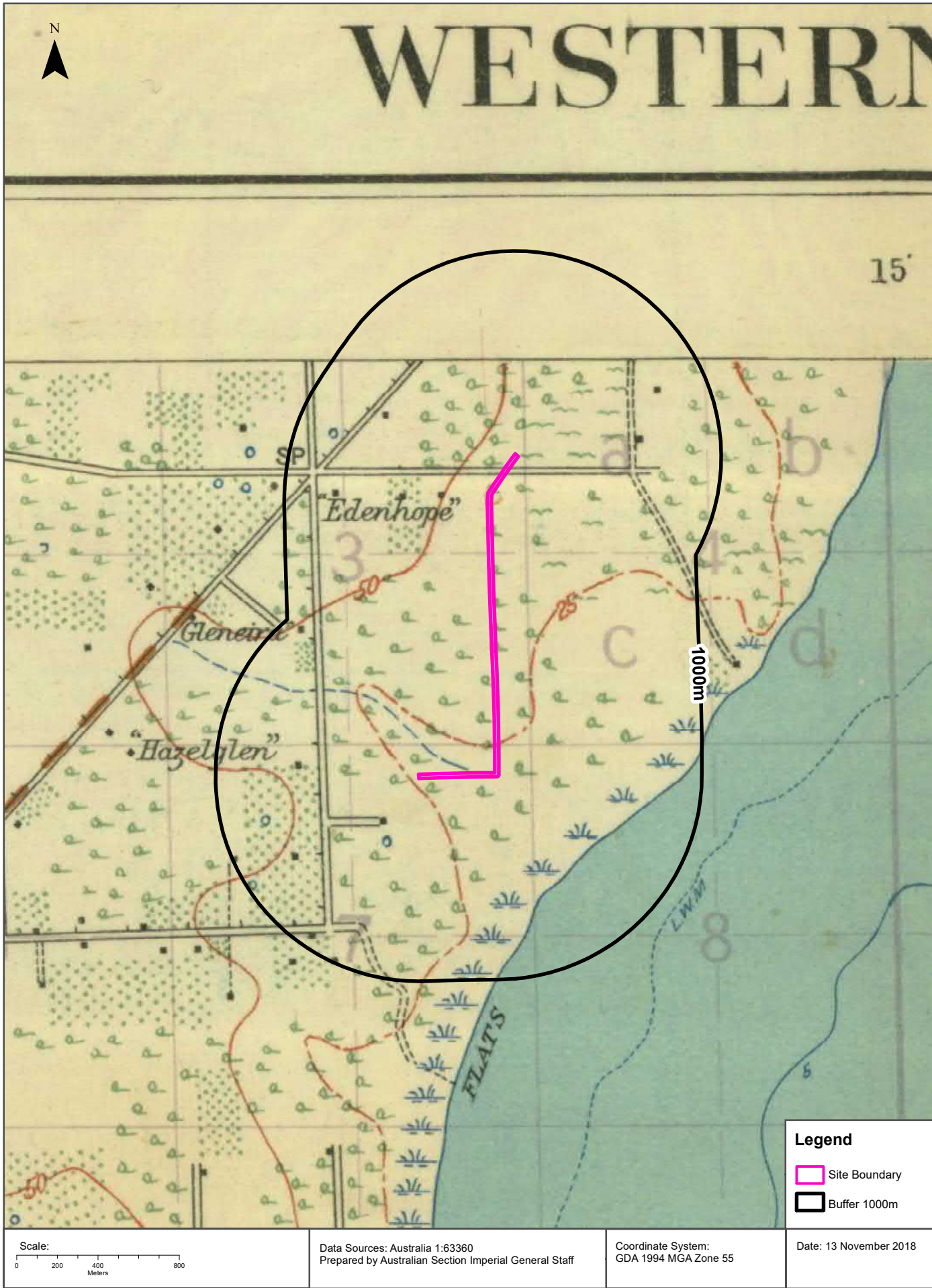
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





Historical Map 1930

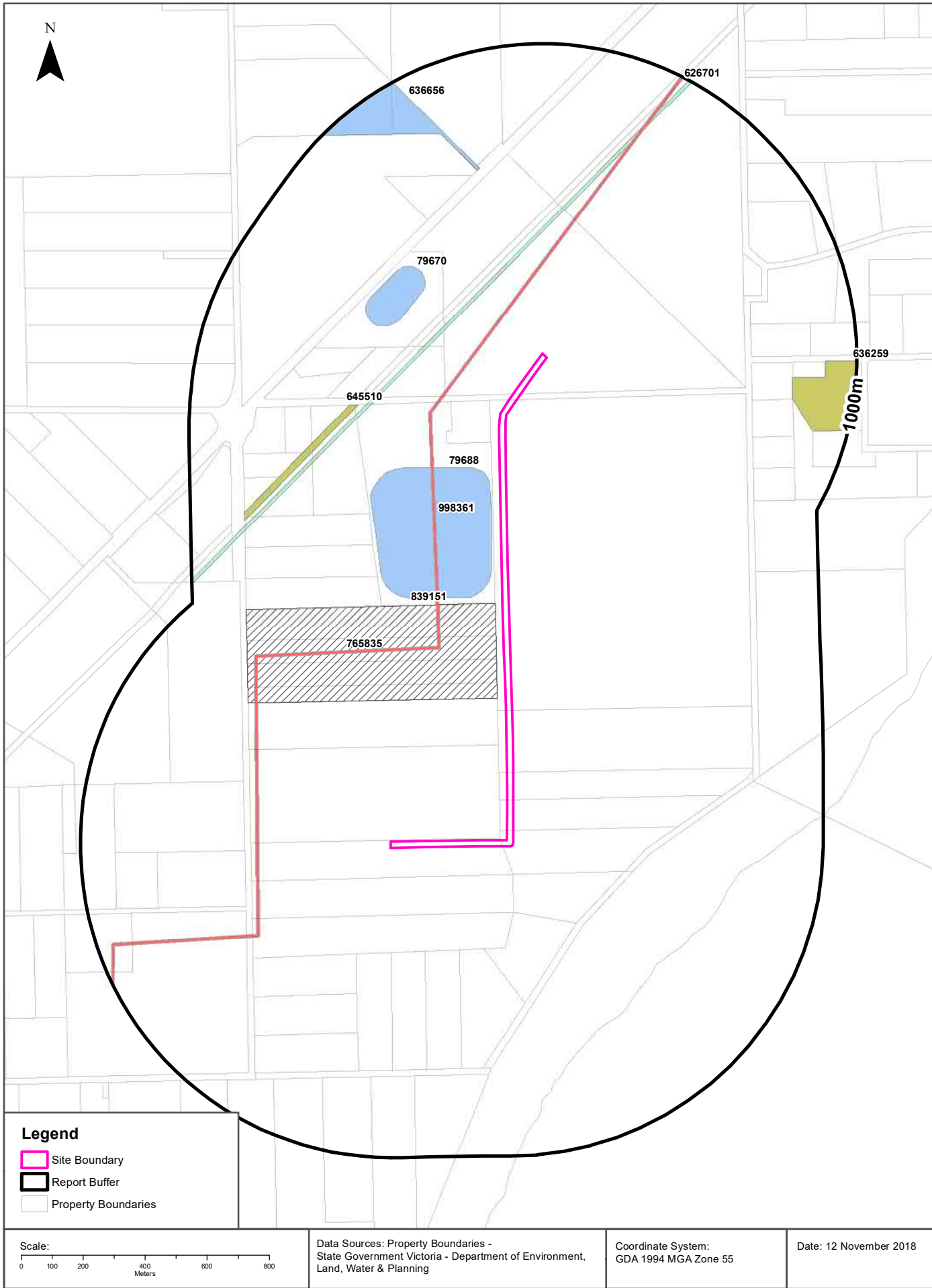
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





# Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



## Features of Interest

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Features of Interest

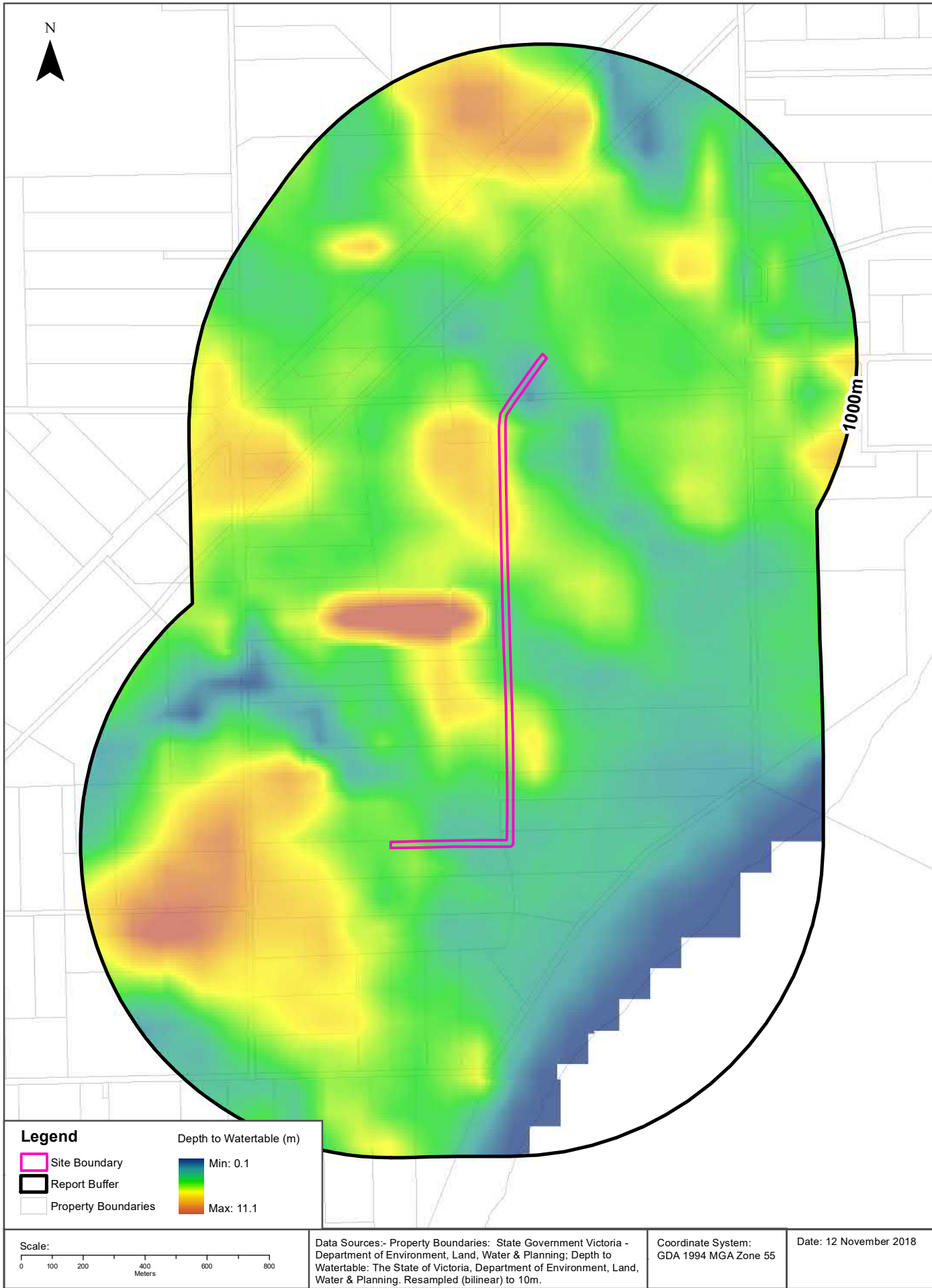
Features of Interest within the dataset buffer:

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
839151	dumping ground	landfill	Tyabb Transfer Station	24m	West
79688	sport facility	training track		31m	North West
998361	pipeline	oil pipeline	Dutson To Hastings	172m	East
626701	power line	power transmission	Cranbourne-Tyabb	278m	North
79670	sport facility	training track		432m	North
645510	reserve	park		461m	North West
765835	dumping ground	transfer station	Tyabb Transfer Station	473m	West
636656	sport facility	equestrian facility	Treehaven Equestrian Centre	629m	North
636259	reserve	park	Gordon Rolfe Reserve	793m	North East

Features of Interest Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Depth to Watertable

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



# Hydrogeology & Groundwater

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	Onsite

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

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## Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	100

## Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
Less than 5 metres	70
5 to 10 metres	30

## Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
5 AHDm to 15 AHDm

## Basement Elevation

Approximate on-site Basement Elevation:

Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
-54 AHDm to -42 AHDm

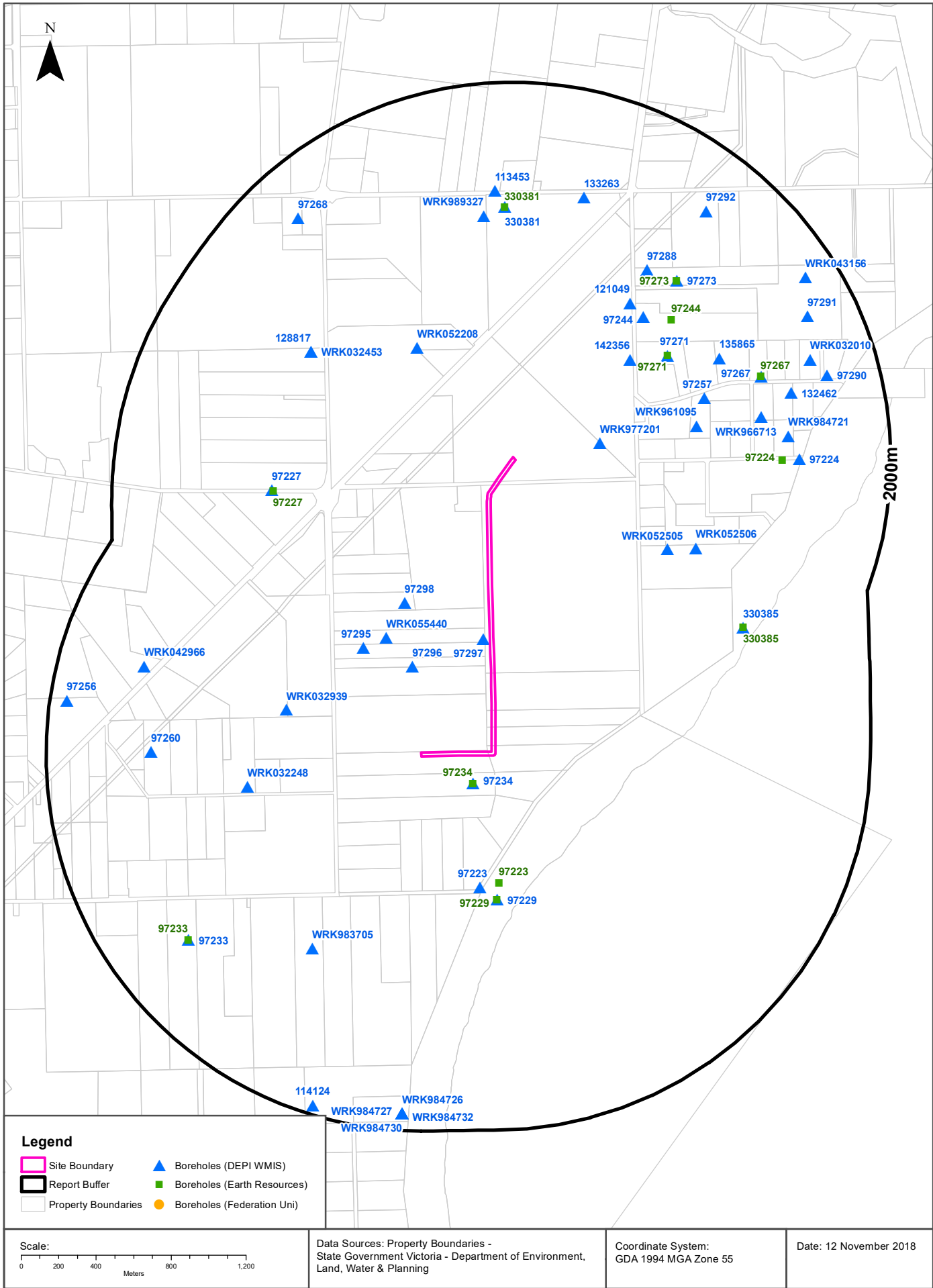
Groundwater Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



# Groundwater Boreholes

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Boreholes (DEPI WMIS)

Boreholes from the Department of Environment and Primary Industries' Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97297	Groundwater Investigation	0.00m-1.00m GREYISH CLAYEY SAND 1.00m-1.50m YELLOW GREY MOTTLED CLAY 1.50m-2.00m STICKY CLAYISH FINE-MEDIUM SAND 2.00m-9.90m MOTTLED GREY-RED SANDY CLAYS 9.90m-11.60m COARSE GREY SANDY CLAYS	0.00m-2.48m INNER LINING - CASING = Pvc 2.48m-11.48m INNER LINING - SCREEN = Pvc 11.48m-11.60m INNER LINING - CASING = Pvc 1.10m-11.60m OUTER LINING - GRAVEL = Gravel		2.48m-11.48m Clay	1988-01-01	32	South
97234	Not Known					1967-12-31	148	South
97296	Groundwater Investigation	0.00m-1.00m BROWN SANDY TOP SOIL 1.00m-1.80m BROWN-WHITE MOTTLED CLAY 1.80m-2.90m MEDIUM-FINE GREY SANDY CLAY 2.90m-6.00m FINE-MEDIUM GREY SANDY CLAY 6.00m-7.50m LIGHT BROWN SILT 7.50m-9.00m DARK BROWN CLAYISH SAND 9.00m-12.00m SANDY CLAY & WEATHERED BASALT	-0.30m-2.42m INNER LINING - CASING = Pvc 2.42m-11.60m INNER LINING - SCREEN = Pvc 1.60m-11.60m OUTER LINING - GRAVEL = Gravel		2.42m-11.60m Clay	1988-01-01	417	South West
97298	Groundwater Investigation	0.00m-0.50m GREY CLAYEY SAND 0.50m-1.50m BROWN & GREY MOTTLED CLAY 1.50m-7.20m YELLOW-WHITE CLAYISH SANDS 7.20m-11.60m BLACK TO DARK GREY CLAYISH SANDS	0.00m-1.55m INNER LINING - CASING = Pvc 1.55m-9.55m INNER LINING - SCREEN = Pvc 1.55m-9.55m OUTER LINING - GRAVEL = Gravel		1.55m-9.55m Sand	1988-01-01	446	West
WRK977201							456	North East
WRK055440	Observation	0.00m-0.50m topsoil 0.50m-1.20m clay 1.20m-2.00m clay 2.00m-4.00m sandy clay 4.00m-8.60m brown sandy clay	0.00m-5.60m INNER LINING - CASING = Pvc 5.60m-8.60m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-1.60m OUTER LINING - GRAVEL = Cement 1.60m-4.60m OUTER LINING - GRAVEL = Bentonite 4.60m-8.60m OUTER LINING - GRAVEL = Gravel		0.00m-5.60m Clay 5.60m-8.60m Clay	2010-06-17	551	West
97295	Groundwater Investigation	0.00m-1.10m BROWN CLAY 1.10m-6.78m GREY SANDY CLAYS 6.78m-7.00m BROWN GRAVELY CLAY 7.00m-8.00m GREY-GREEN MOTTLED CLAY 8.00m-10.15m YELLOW SANDY CLAY	0.30m-3.66m INNER LINING - CASING = Pvc 3.66m-9.66m INNER LINING - SCREEN = Pvc 3.66m-9.66m OUTER LINING - GRAVEL = Gravel		3.66m-9.66m Clay	1988-01-01	636	West
97223	Observation, State Observation Network		0.00m-38.00m INNER LINING - CASING = Not Known 38.00m-44.00m INNER LINING - SCREEN = Not Known	Date/time: 2016-04-27 1340 Quality: 43 WLMP: 4.76m DBNS: 4.34m RWL: 2.04mAH	38.00m-44.00m Clay	1978-06-28	704	South
WRK032939	Commercial, Not Known	0.00m-0.30m TOP SOIL 0.30m-17.00m CLAY & SILTS 17.00m-19.00m SAND 19.00m-31.00m DARK BROWN & GREY CLAYS 31.00m-53.00m MARL 53.00m-54.50m MARINE CLAYS 54.50m-55.00m CAP ROCK 55.00m-57.80m LIMESTONE	0.00m-55.00m INNER LINING - CASING = Pvc 55.00m-58.00m INNER LINING - SCREEN = Pvc 0.00m-0.00m OUTER LINING - GRAVEL = Packer			1998-08-24	752	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97229	Not Known					1978-10-05	768	South
WRK052208	Irrigation	0.00m-0.40m SOIL 0.40m-16.00m CLAY 16.00m-18.90m SILT 18.90m-29.00m MARL 29.00m-30.50m LIMESTONE 30.50m-43.00m SHALE 43.00m-115.00m MUDSTONE	0.00m-73.50m INNER LINING - CASING = Pvc 4.00m-45.30m OUTER LINING - GRAVEL = Cement 72.00m-72.50m OUTER LINING - GRAVEL = Packer		73.50m-115.00m Mudstone	2014-04-17	774	North
142356	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-1.80m BROWN CLAY 1.80m-3.50m SANDY GREY & BROWN CLAY 3.50m-6.00m FINE SANDY GREY CLAY 6.00m-8.20m GREY CLAY & COARSE SAND 8.20m-17.00m BROWN SILT THIN SANDSTONE LAYERS 17.00m-37.50m MARINE SILT LAYERS 37.50m-38.80m DARK MARINE SILT & SHELL 38.80m-39.00m LIMESTONE 39.00m-42.00m SOFT LIMESTONE 42.00m-42.30m COARSE SNAD 42.30m-42.60m BROWN COAL	0.00m-42.60m OUTER LINING - GRAVEL = Cement			1998-10-23	811	North East
WRK052505	Irrigation	0.00m-0.30m TOP SOIL 0.30m-44.00m CLAY 44.00m-48.00m STONE	0.00m-44.00m INNER LINING - CASING = Pvc 1.00m-44.00m OUTER LINING - GRAVEL = Cement 44.00m-48.00m OUTER LINING - GRAVEL = Packer			2008-07-04	939	North East
WRK032248	Irrigation	0.00m-0.60m SURFACE SOIL 0.60m-0.90m SUBSOIL 0.90m-3.60m CLAY 3.60m-8.50m SANDY MOTTLEY CLAY 8.50m-9.70m MARINE SILT AND SAND 9.70m-37.40m MARINE SILT AND SHELL 37.40m-39.60m DARK MARINE CLAYEY SILT 39.60m-40.00m LIMESTONE 40.00m-43.00m LAYERS OF CORAL AND LIMESTONE 43.00m-44.00m BROWN COAL 44.00m-44.20m BLACK MUDSTONE	0.20m-40.00m INNER LINING - CASING = Pvc 40.00m-43.00m INNER LINING - SCREEN = Pvc 0.00m-1.00m OUTER LINING - GRAVEL = Cement 30.00m-36.00m OUTER LINING - GRAVEL = Cement			1994-06-30	941	South West
97271	Domestic, Stock	0.00m-0.50m SURFACE SOIL 0.50m-0.90m SAND 0.90m-14.50m SANDY GREY & BROWN CLAY DARK GREY SANDY CLAY DARK GREEN CLAY 14.50m-40.50m LIGHT MARINE SILT 40.50m-41.10m DARK MARINE SILT & SHELL 41.10m-47.80m SANDSTONE. LIMESTONE & SHELL 47.80m-48.00m COARSE SAND 48.00m-48.50m BROWN CORAL	0.00m-42.90m INNER LINING - CASING = Galvanised Iron 42.90m-48.20m INNER LINING - SCREEN = Galvanised Iron		42.90m-48.20m Sandstone	1983-02-06	981	North East
WRK961095							981	North East
97244	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.91m GREY SAND 0.91m-3.35m CLAY 3.35m-3.96m SANDY CLAY 3.96m-10.36m SLOPPY CLOGGY SAND 10.36m-12.50m STICKY MARINE SANDY CLAY 12.50m-32.00m BROKEN SANDSTONE PIECES MARINE CLAY SHELL 32.00m-37.20m MARINE CLAY SILT AND LITTLE SHELL 37.20m-38.10m CONSOLIDATED MARINE CLAY SILT AND SHELL 38.10m-39.32m DARK MARINE CLAY SHELL 39.32m-42.10m SOFT LIMESTONE SHELL 42.10m-43.60m HARD SHELLY LIMESTONE 43.60m-43.90m SOFT LAYERS OF BROKEN LIMESTONE AND SHELL	0.00m-39.62m INNER LINING - CASING = Not Known 39.62m-43.89m INNER LINING - SCREEN = Not Known			1970-10-25	1021	North East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
121049	Irrigation	0.00m-0.20m SURFACE SOIL 0.20m-2.00m BROWN CLAY 2.00m-3.40m SANDY GREY & BROWN CLAY 3.40m-6.00m FINE SANDY GREY CLAY 6.00m-8.50m GREY CLAY & COARSE SAND 8.50m-15.80m GREY & BROWN FINE SANDY CLAY 15.80m-18.20m BROWN SILT THIN LAYERS OF SANDSTONE 18.20m-40.00m MARINE & BROWN SILT 40.00m-43.20m DARK MARINE SILT & SHELL 43.20m-43.80m LIMESTONE 43.80m-46.90m LAYERS OF LIMESTONE CORAL & SHELLS 46.90m-47.50m COARSE SAND 47.50m-47.80m BROWN SAND	-0.10m-43.20m INNER LINING - CASING = Steel 43.20m-47.50m INNER LINING - SCREEN = Steel 0.00m-0.00m OUTER LINING - GRAVEL = Seal		43.20m-47.50m Limestone	1993-11-27	1031	North East
97257	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-10.40m SANDY CLAY GREY AND BROWN 10.40m-12.50m DARK GREY SANDY CLAY 12.50m-14.90m DARK GREEN CLAY 14.90m-40.50m LIGHT MARINE SILT 40.50m-41.10m DARK MARINE SILT AND SHELL 41.10m-47.80m SANDSTONE LIMESTONE AND SHELL 47.80m-48.00m COARSE SAND 48.00m-48.50m BROWN COAL	0.00m-42.10m INNER LINING - CASING = Pvc 42.10m-48.50m INNER LINING - SCREEN = Pvc		42.10m-48.50m Sand	1980-11-08	1058	North East
WRK052506	Irrigation	0.00m-0.30m TOP SOIL 0.30m-44.30m CLAY 44.30m-49.00m STONE	0.00m-44.50m INNER LINING - CASING = Pvc 0.00m-44.50m OUTER LINING - GRAVEL = Cement 44.50m-49.00m OUTER LINING - GRAVEL = Seal			2008-07-07	1068	East
97227	Observation, State Observation Network		0.00m-36.00m INNER LINING - CASING = Not Known 36.00m-42.00m INNER LINING - SCREEN = Not Known	Date/time: 2018-08-01 1026 Quality: 43 WLMP: 7.62m DBNS: 6.71m RWL: 15.98mAHD	36.00m-42.00m Clay	1978-11-20	1146	North West
WRK983705							1179	South West
WRK032453	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-7.60m SANDY CLAY 7.60m-10.60m FINE SAND 10.60m-11.20m BROWN COAL 11.20m-13.70m CLAY 13.70m-36.50m MARL 36.50m-38.10m LIMESTONE 38.10m-38.40m SAND 38.40m-38.70m BROWN COAL 38.70m-41.10m BROWN CLAY 41.10m-42.60m GREY CLAY 42.60m-44.10m DECOMPOSED BASALT 44.10m-57.80m GREEN SANDSTONE 57.80m-60.00m GREY SANDSTONE				1996-08-22	1201	North West
128817	Not Used - Capped	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SANDY CLAY 0.60m-7.60m IRONSTONE 7.60m-8.50m CLAYEY SAND 8.50m-12.80m WHITE MEDIUM FINE SAND 12.80m-13.70m BROWN COAL 13.70m-14.30m CLAY 14.30m-15.20m MARINE SILT 15.20m-38.00m MARINE SILT AND SHELL 38.00m-38.40m LIMESTONE 38.40m-39.60m SOFT LIMESTONE 39.60m-40.80m BROWN COAL 40.80m-41.50m BROWN CLAY 41.50m-45.00m GREY CLAY 45.00m-74.70m BASALTIC CLAY 74.70m-76.20m DECOMPOSED BASALT 76.20m-158.50m MUDSTONE / SANDSTONE				1996-08-15	1201	North West



Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
135865	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-2.50m CLAY 2.50m-8.00m SANDY CLAY 8.00m-10.60m BROWN CLAY 10.60m-13.00m CLAY, COARSE SAND 13.00m-15.80m MARINE CLAY & LAYERS OF IRONSTONE 15.80m-41.00m MARLE 41.00m-43.00m DARK GREEN MARLE AND SHELL 43.00m-43.30m LIMESTINE 43.30m-48.00m CORAL	-4.20m-43.00m INNER LINING - CASING = Pvc 43.00m-48.00m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement 43.00m-0.00m OUTER LINING - GRAVEL = Seal		43.00m-48.00m Limestone	1998-09-02	1212	North East
97288	Domestic, Stock					1988-01-01	1227	North East
97273	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SAND 0.60m-0.90m COFFEE ROCK 0.90m-6.10m RED & GREY SANDY CLAY 6.10m-11.60m GREEN & BROWN SANDY CLAY 11.60m-40.50m MARINE SILT 40.50m-42.10m GREEN SANDY CLAY 42.10m-46.30m LIMESTONE & COAL 46.30m-46.90m LIMESTONE & COARSE SAND	0.00m-42.10m INNER LINING - CASING = Steel 42.10m-46.90m INNER LINING - SCREEN = Steel		42.10m-46.90m Limestone	1986-01-02	1284	North East
WRK989327							1296	North
WRK966713							1327	North East
330385	Non Groundwater					1919-12-31	1331	East
330381	Non Groundwater					1919-12-31	1335	North
97267	Domestic		0.00m-42.10m INNER LINING - CASING = Mild Steel 42.10m-49.10m INNER LINING - SCREEN = Mild Steel			1985-02-05	1382	North East
113453	Stock	0.00m-0.30m SURFACE SOIL 0.30m-1.80m BROWN CLAY 1.80m-3.60m SANDY GREY & BROWN CLAY 3.60m-4.80m FINE SANDY GREY CLAY 4.80m-5.50m FINE SANDY GREY CLAY & IRONSTONE 5.50m-7.00m GREY CLAY & COARSE SAND 7.00m-14.30m GREY & BROWN FINE SANDY CLAY 14.30m-16.70m BROWN SILT & SANDSTONE 16.70m-21.30m MARINE & BROWN SILT WITH THIN LAYERS SANDSTONE 21.30m-31.00m MARINE SILT 31.00m-31.60m LIMESTONE 31.60m-34.70m LIMESTONE & CORAL 34.70m-35.00m SAND COARSE 35.00m-35.60m BROWN COAL	-0.30m-31.00m INNER LINING - CASING = Pvc 31.00m-35.60m INNER LINING - SCREEN = Pvc 30.00m-31.00m OUTER LINING - GRAVEL = Cement		31.00m-35.60m Limestone	1993-03-18	1425	North
133263	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-1.50m CLAY 1.50m-3.00m WHITE & ORANGE CLAY & SAND 3.00m-8.00m FINE SANDY GREY CLAY 8.00m-10.50m YELLOW FINE SANDY CLAY 10.50m-12.00m DARK GREY CLAY WITH C/SAND 12.00m-14.60m DARK MARINE CLAYEY SILT 14.60m-23.50m MARLE THIN LENSES ROCK 23.50m-36.00m MARLE 36.00m-38.50m DARK GREEN CLAYEY SILT 38.50m-38.80m CAP ROCK 38.80m-39.50m LIMESTONE 39.50m-43.70m CORAL 43.70m-44.00m COARSE SAND 44.00m-45.00m BROWN COAL	0.20m-38.50m INNER LINING - CASING = Pvc 38.50m-45.00m INNER LINING - SCREEN = Pvc 0.00m-0.00m OUTER LINING - GRAVEL = Seal		38.50m-45.00m Sand	1998-03-13	1436	North

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97260	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SAND 0.60m-1.20m CLAY 1.20m-15.20m STICKY MARINE CLAY 15.20m-17.30m DARK GREY CLAYEY SILT 17.30m-46.90m MARINE SILT AND SHELL 46.90m-47.50m MARINE SHELL 47.50m-49.90m LIMESTONE AND SHELL 49.90m-50.20m MUDSTONE	0.00m-45.40m INNER LINING - CASING = Galvanised Iron 47.50m-49.90m INNER LINING - SCREEN = Galvanised Iron			1981-04-01	1439	West
WRK984721	Domestic & Stock	0.50m-1.20m GREY SAND 1.20m-5.00m GREY & ORANGE CLAY 5.00m-8.00m GREY CLAY 8.00m-14.50m SILTY CLAY 14.50m-18.00m LIMESTONE 18.00m-19.00m LIMESTONE/SANDY CLAY 19.00m-42.00m SILT & CLAY 42.00m-43.00m CLAY & SHELLS 43.00m-44.50m SAND LIMESTONE & SHELLS	1.00m-7.00m OUTER LINING - GRAVEL = Cement		41.50m-44.50m Limestone	2008-07-16	1457	North East
132462	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-2.40m CLAY 2.40m-7.30m SANDY CLAY 7.30m-9.00m BROWN CLAY 9.00m-11.00m BROWN CLAY & COURSE SAND 11.00m-11.50m MARINE CLAY & COURSE SAND 11.50m-15.20m MARINE CLAY & LAYERS OF IRONSTONE 15.20m-15.50m IRONSTONE 15.50m-40.00m MARLE 40.00m-42.30m DARK GREEN MARLE & SHELLS 42.30m-42.60m LIMESTONE 42.60m-46.00m CORAL 46.00m-47.00m MEDIUM SAND	-0.20m-42.50m INNER LINING - CASING = Pvc 42.50m-47.00m INNER LINING - SCREEN = Pvc 42.20m-0.00m OUTER LINING - GRAVEL = Seal		42.50m-47.00m Limestone	1997-03-26	1511	North East
97224	Observation, State Observation Network			Date/time: 2009-05-06 1537 Quality: 43 WLMP: 5.54m DBNS: 4.54m RWL: -1.25mAH		1978-07-25	1511	North East
WRK042966	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-3.60m MOTTLEY CLAY 3.60m-5.20m SANDY CLAY 5.20m-7.60m SANDY CLAY AND SAND 7.60m-8.40m GREY CLAY 8.40m-10.00m BROWN COAL 10.00m-13.70m GREY AND BROWN CLAY 13.70m-47.80m MARLE 47.80m-49.30m DARK GREEN MARLE AND SHELLS 49.30m-49.60m LIMESTONE 49.60m-54.90m CORAL AND SILT 54.90m-56.30m BROWN COAL WITH A LAYER OF FINE SAND 56.30m-57.90m MEDIUM SAND 57.90m-59.40m GREY CLAY 59.40m-70.00m GREY MUDSTONE 70.00m-123.00m BLACK SHALE	-0.30m-49.00m INNER LINING - CASING = Pvc 49.00m-52.00m INNER LINING - SCREEN = Pvc 52.00m-58.00m INNER LINING - SCREEN = Slotted Pvc		49.00m-52.00m Clay 52.00m-58.00m Clay	1997-05-14	1546	West
97233	Not Known					1967-12-31	1580	South West
WRK032010	Commercial	0.00m-0.60m SURFACE SOIL 0.60m-0.80m COFFEE ROCK 0.80m-1.50m SAND 1.50m-3.00m GREY & BROWN SANDY CLAY 3.00m-5.40m MOTTLEY SANDY CLAY 5.40m-9.70m MEDIUM FINE SAND & CLAY 9.70m-13.10m DARK MARINE CLAYEY SILT WITH THIN SANDSTONE LAYERS 13.10m-35.00m MARINE CLAYEY SILT 35.00m-35.60m SOFT DARK MARINE SANDSTONE & SHELL 35.60m-36.20m LIMESTONE 36.20m-41.40m LIMESTONE & MEDIUM SAND 41.40m-42.00m GREY CLAY	-0.20m-36.80m INNER LINING - CASING = Pvc 36.80m-41.20m INNER LINING - SCREEN = Pvc			1992-12-17	1657	North East
97292	Domestic, Stock					1988-01-01	1666	North East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97268	Domestic, Stock		0.00m-37.20m INNER LINING - CASING = Galvanised Iron 37.20m-38.40m INNER LINING - SCREEN = Galvanised Iron			1984-11-23	1713	North West
97290	Domestic					1988-01-01	1719	North East
97291	Stock					1988-01-01	1734	North East
WRK043156	Domestic, Irrigation, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m TOP FILLING 0.90m-7.00m CLAY 7.00m-13.70m SANDY GREEN CLAY 13.70m-21.30m MARINE CLAY & SHELL 21.30m-38.10m LIGHT MARINE CLAY 38.10m-38.90m DARK MARINE SOFT ROCK & SHELL 38.90m-45.40m LAYERS OF HARD SANDSTONE LIMESTONE & SHELL	0.00m-38.90m INNER LINING - CASING = Steel 38.90m-45.70m INNER LINING - SCREEN = Steel			1977-12-12	1825	North East
WRK984732	Domestic & Stock	0.00m-0.40m SANDY SILT 0.40m-6.00m SILTY CLAY 6.00m-7.50m SANDY CLAY 7.50m-9.30m CLAYEY SAND	0.00m-6.30m INNER LINING - CASING = Pvc 6.30m-9.30m INNER LINING - SCREEN = Pvc 0.00m-5.30m OUTER LINING - GRAVEL = Cement 5.30m-5.80m OUTER LINING - GRAVEL = Bentonite 5.80m-9.30m OUTER LINING - GRAVEL = Gravel			2008-01-28	1908	South
WRK984729	Domestic & Stock	0.00m-0.70m SILTY SAND 0.70m-1.60m SILTY CLAY 1.60m-7.00m SANDY CLAY 7.00m-9.50m CLAYEY SAND	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-9.00m INNER LINING - SCREEN = Pvc 0.00m-5.00m OUTER LINING - GRAVEL = Cement 5.00m-5.50m OUTER LINING - GRAVEL = Bentonite 5.50m-9.00m OUTER LINING - GRAVEL = Gravel			2008-01-17	1908	South
WRK984727	Domestic & Stock	0.00m-1.10m SILTY SAND 1.10m-2.20m SANDY CLAY 2.20m-6.80m SAND & SOME CLAY	0.00m-3.80m INNER LINING - CASING = Pvc 3.80m-6.80m INNER LINING - SCREEN = Pvc 0.00m-2.80m OUTER LINING - GRAVEL = Cement 2.80m-3.30m OUTER LINING - GRAVEL = Bentonite 3.30m-6.80m OUTER LINING - GRAVEL = Gravel			2008-01-22	1908	South
WRK984730	Domestic & Stock	0.00m-1.00m SILTY SAND 1.00m-4.10m SANDY CLAY 4.10m-7.50m CLAYEY SAND	0.00m-3.10m INNER LINING - CASING = Pvc 3.10m-6.10m INNER LINING - SCREEN = Pvc 0.00m-2.10m OUTER LINING - GRAVEL = Cement 2.10m-2.60m OUTER LINING - GRAVEL = Bentonite 2.60m-6.10m OUTER LINING - GRAVEL = Gravel			2008-01-18	1908	South
WRK984724	Domestic & Stock	0.00m-0.40m SANDY SILT 0.40m-3.00m SILTY CLAY 3.00m-5.10m SANDY CLAY	0.00m-2.10m INNER LINING - CASING = Pvc 2.10m-5.10m INNER LINING - SCREEN = Pvc 0.00m-0.80m OUTER LINING - GRAVEL = Cement 0.80m-1.60m OUTER LINING - GRAVEL = Bentonite 1.60m-5.10m OUTER LINING - GRAVEL = Gravel			2008-01-25	1908	South
WRK984726	Domestic & Stock	0.00m-0.40m SILTY SAND 0.40m-2.50m SANDY CLAY 2.50m-4.50m CLAYEY SAND 4.50m-9.50m FINE SAND	0.00m-3.50m INNER LINING - CASING = Pvc 3.50m-9.50m INNER LINING - SCREEN = Pvc 0.00m-2.50m OUTER LINING - GRAVEL = Cement 2.50m-3.00m OUTER LINING - GRAVEL = Bentonite 3.00m-9.50m OUTER LINING - GRAVEL = Gravel			2008-01-23	1908	South
WRK984725	Domestic & Stock	0.00m-0.80m FILL CLAY 0.80m-1.70m CLAY (NATURAL) 6.30m-7.20m SANDY CLAY	0.00m-4.00m INNER LINING - CASING = Pvc 4.00m-7.00m INNER LINING - SCREEN = Pvc 0.00m-3.00m OUTER LINING - GRAVEL = Cement 3.00m-3.50m OUTER LINING - GRAVEL = Bentonite 3.50m-7.00m OUTER LINING - GRAVEL = Gravel			2008-01-24	1908	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK984731	Domestic & Stock	0.00m-0.40m SILTY SAND 0.40m-2.00m SILTY CLAY 2.00m-5.00m SANDY CLAY 5.00m-9.50m CLAYEY SAND	0.00m-4.00m INNER LINING - CASING = Pvc 4.00m-7.00m INNER LINING - SCREEN = Pvc 0.00m-3.00m OUTER LINING - GRAVEL = Cement 3.00m-3.50m OUTER LINING - GRAVEL = Bentonite 3.50m-7.00m OUTER LINING - GRAVEL = Gravel			2008-01-17	1908	South
WRK984723	Domestic & Stock	0.00m-0.40m SILTY SAND 0.40m-6.10m SANDY CLAY 6.10m-6.50m CLAYEY SAND 6.50m-10.80m SAND	0.00m-7.80m INNER LINING - CASING = Pvc 7.80m-10.80m INNER LINING - SCREEN = Pvc 0.00m-6.50m OUTER LINING - GRAVEL = Cement 6.50m-7.20m OUTER LINING - GRAVEL = Bentonite 7.20m-10.80m OUTER LINING - GRAVEL = Gravel			2008-01-22	1908	South
WRK984728	Domestic & Stock	0.00m-1.00m SILTY SAND 1.00m-3.00m SANDY CLAY 3.00m-5.50m CLAYEY SAND	0.00m-2.50m INNER LINING - CASING = Pvc 2.50m-5.50m INNER LINING - SCREEN = Pvc 0.00m-1.50m OUTER LINING - GRAVEL = Cement 1.50m-2.00m OUTER LINING - GRAVEL = Bentonite 2.00m-5.50m OUTER LINING - GRAVEL = Gravel			2008-01-22	1908	South
97256	Domestic, Irrigation, Stock	0.00m-1.20m SURFACE SOIL PEAT 1.20m-1.80m CLAY 1.80m-4.30m SANDY BROWN CLAY 4.30m-8.40m GREY AND BROWN SANDY CLAY 8.40m-10.40m GREY SANDY CLAY 10.40m-11.30m SLOPPY GREY SANDY CLAY 11.30m-13.10m DARK MARINE CLAY AND COARSE SAND 13.10m-15.80m BROWN CLAY WITH PIECES SANDSTONE 15.80m-19.20m SLOPPY MARINE SANDY CLAY 19.20m-48.50m MARINE CLAY, SHELL MARINE SILT, SHELL, SOFT MARINE ROCK, LAY 48.50m-48.80m BROWN COAL	0.00m-45.10m INNER LINING - CASING = Pvc 45.10m-48.80m INNER LINING - SCREEN = Pvc		45.10m-48.80m Sandstone	1980-03-06	1910	West
114124	Groundwater Investigation	0.00m-14.00m SANDY CLAY BROWN / RED 14.00m-20.50m SAND GREY / BROWN SOME FINE 20.50m-22.50m SANDY CLAY BLACK	-0.50m-18.20m INNER LINING - CASING = Pvc 18.20m-20.20m INNER LINING - SCREEN = Pvc 20.20m-22.50m INNER LINING - SCREEN = Slotted Pvc 0.00m-4.90m OUTER LINING - GRAVEL = Cement 4.90m-6.40m OUTER LINING - GRAVEL = Bentonite 6.40m-20.20m OUTER LINING - GRAVEL = Gravel		18.20m-20.20m Sand 20.20m-22.50m Clay	1992-07-17	1949	South

Boreholes WMIS Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Direct
97234		Private Individual/Corporation				31/12/1967	45.72		300	148	South
97223		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		28/06/1978	58.00	6.50	300	679	South
97229		Department of Manufacturing & Industry Development		Percussion (cable)	Abandoned	05/10/1978	44.00	5.70	300	767	South
97271		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		06/02/1983	48.20		100	980	North East
97244		Private Individual/Corporation	Domestic water supply	Percussion (cable)		25/10/1970	43.89		300	1117	North East
97227		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		20/11/1978	48.00	22.70	300	1140	North West
97273		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		02/01/1985	46.90		100	1283	North East
330385		Department of Manufacturing & Industry Development				31/12/1919	56.39		300	1330	East
330381		Department of Manufacturing & Industry Development				31/12/1919	35.66		300	1336	North
97267		Private Individual/Corporation	Domestic water supply	Percussion (cable)		05/02/1985	49.00		100	1380	North East
97224		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		25/07/1978	64.00	3.32	300	1419	North East
97233		Private Individual/Corporation				31/12/1967	53.34		300	1581	South West

Boreholes Earth Resources Data Source: © The State of Victoria, Department of Economic Development, Jobs, Transport and Resources 2015. Creative Commons Attribution 3.0 Australia

### Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Direct
N/A	No records within buffer						

Boreholes FedUni Data Source: © Federation University Australia

## Historical Mining Activity - Shafts

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Historical Mining Activity - Shafts

Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

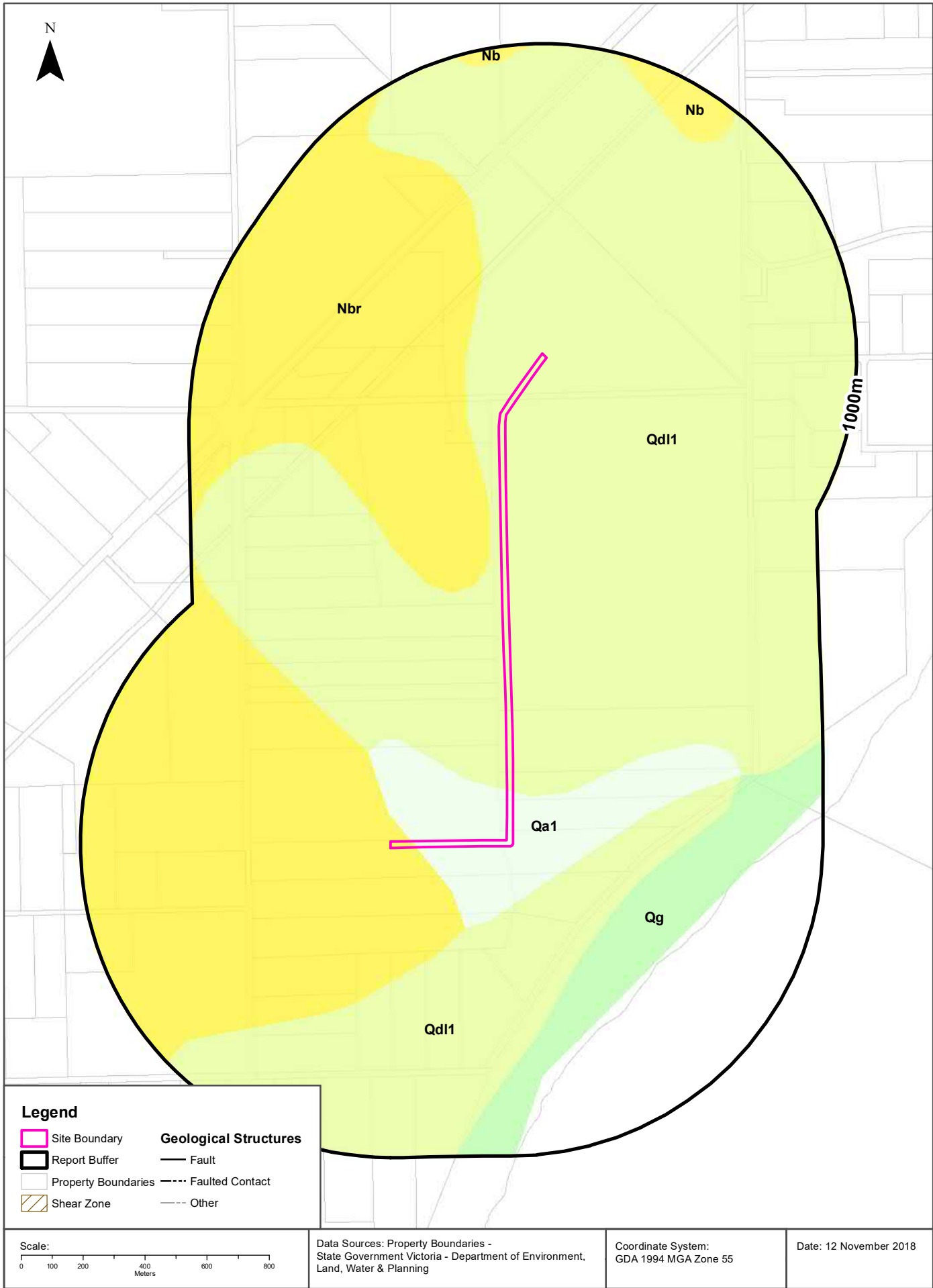
Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Historical Mining Activity Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources

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Geology 1:250,000

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



# Geology

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Geological Units

What are the Geological Units onsite?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qa1	alluvium( Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	Pleistocene to Holocene	gravel material (significant); sand (significant); silt material (significant)	1:250,000
Qdl1	coastal dune deposits (Qdl1): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nb	Brighton Group( Nb): generic	Gravel, sand, silt: variably calcareous to ferruginous sandstones and coquinas; marine to nonmarine	Miocene to Pliocene	silt material (significant); sand (significant); gravel material (significant)	1:250,000
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qa1	alluvium( Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	Pleistocene to Holocene	gravel material (significant); sand (significant); silt material (significant)	1:250,000
Qdl1	coastal dune deposits (Qdl1): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qg	coastal lagoon deposits (Qg): generic	Silt, clay: dark grey to black; variably consolidated	Holocene to Holocene	silt material (significant); clay lithology (significant)	1:250,000

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## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Geological Structures

What are the Geological Faults or Faulted Contacts onsite?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

What are the Dykes, Marker Beds and Veins onsite?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones onsite (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

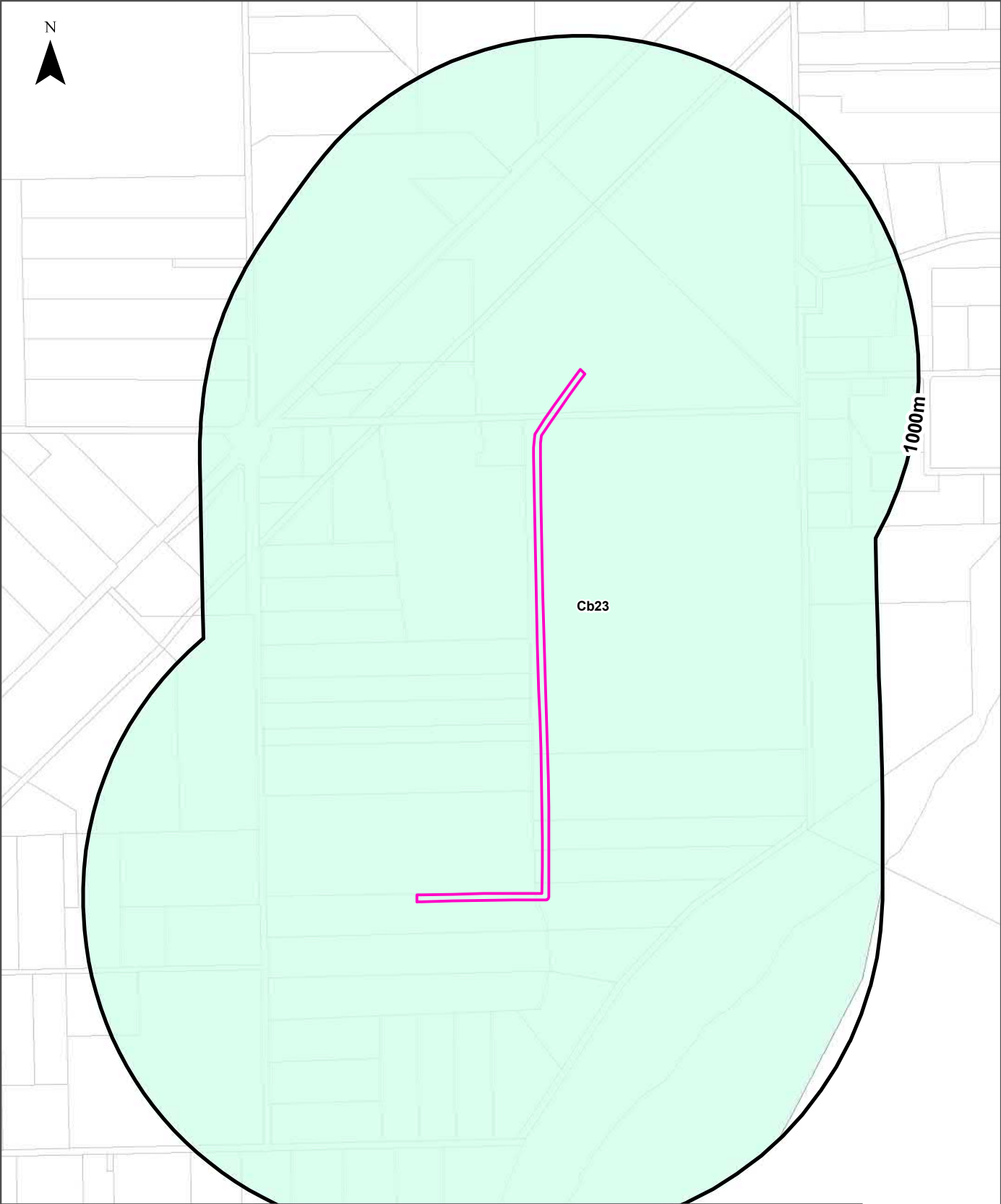
What are the Dykes, Marker Beds and Veins within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones within the dataset buffer (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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Legend		Australian Soil Classification Orders						
Site Boundary	Anthroposol	Dermosol	Kandosol	Podosol	Tenosol	No Data		
Report Buffer	Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol			
Property Boundary	Chromosol	Hydrosol	Organosol	Sodosol	Lake			

Scale: 0 100 200 400 600 800 Meters	Data Sources: Property Boundaries - State Government Victoria - Department of Environment, Land, Water & Planning	Coordinate System: GDA 1994 MGA Zone 55	Date: 12 November 2018
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## Soil Landscapes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Atlas of Australian Soils

Australian soil types within the dataset buffer:

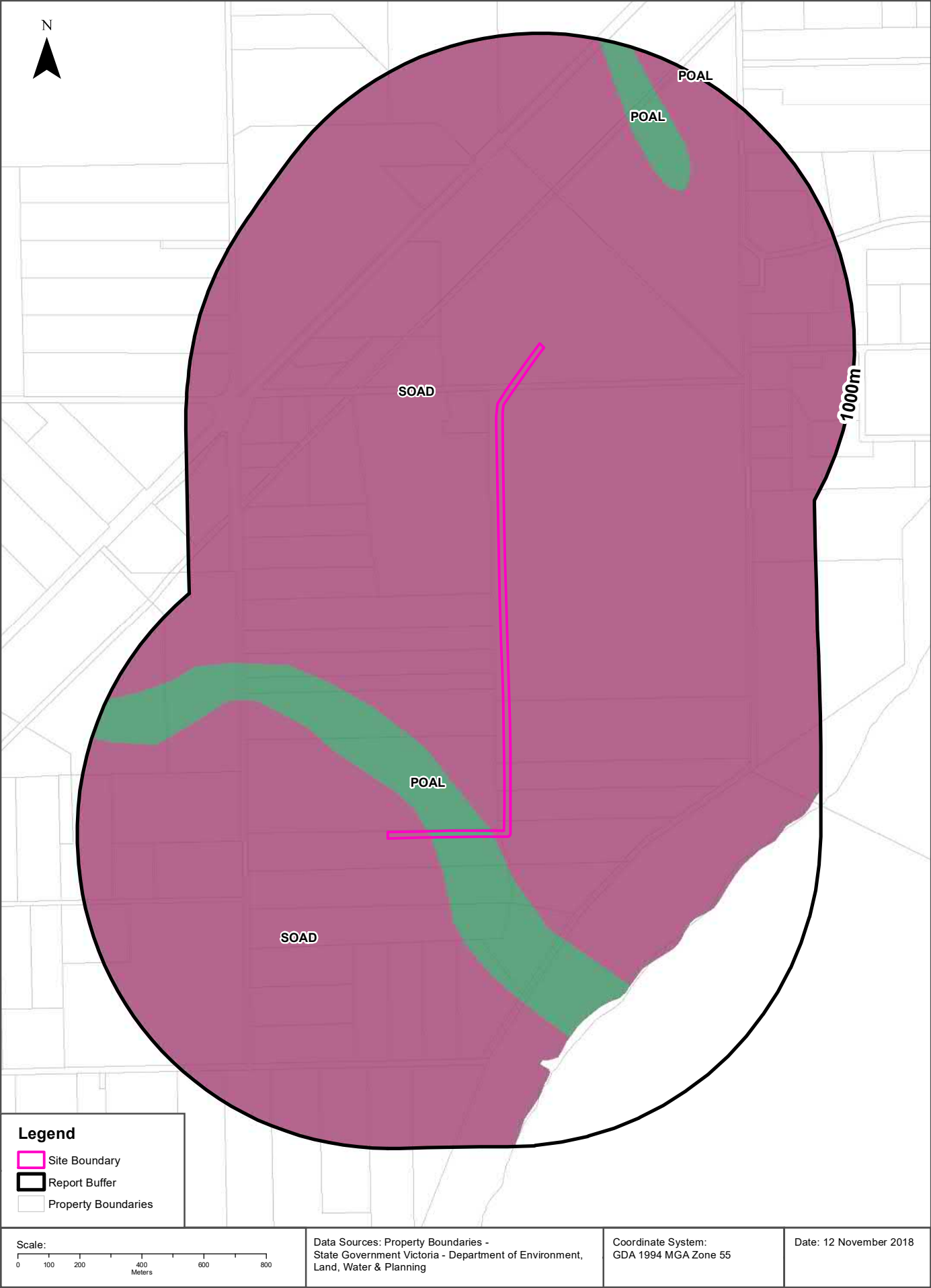
Symbol	Soil Order	Map Unit Description	Distance
Cb23	Podosol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests. and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m

Atlas of Australian Soils: CSIRO

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Victorian Soil Type Mapping

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





## Soil Landscapes

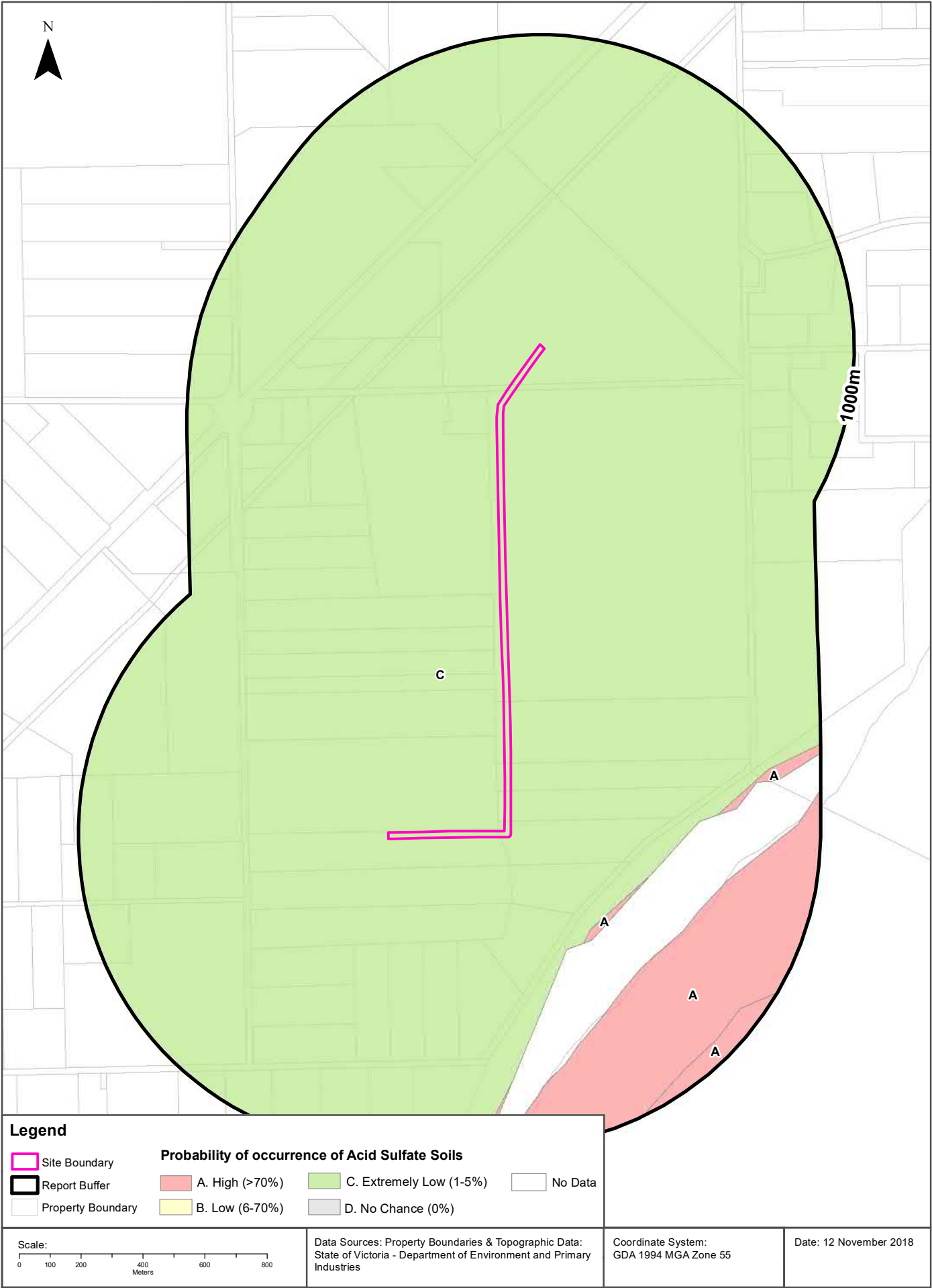
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Victorian Soil Type Mapping

Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance
POAL	Aeric Podosols	0m
SOAD	Grey Sodosols	0m

Victorian Soil Type Mapping Data Source: Department of Economic Development, Jobs, Transport and Resources  
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## Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Atlas of Australian Acid Sulfate Soils

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

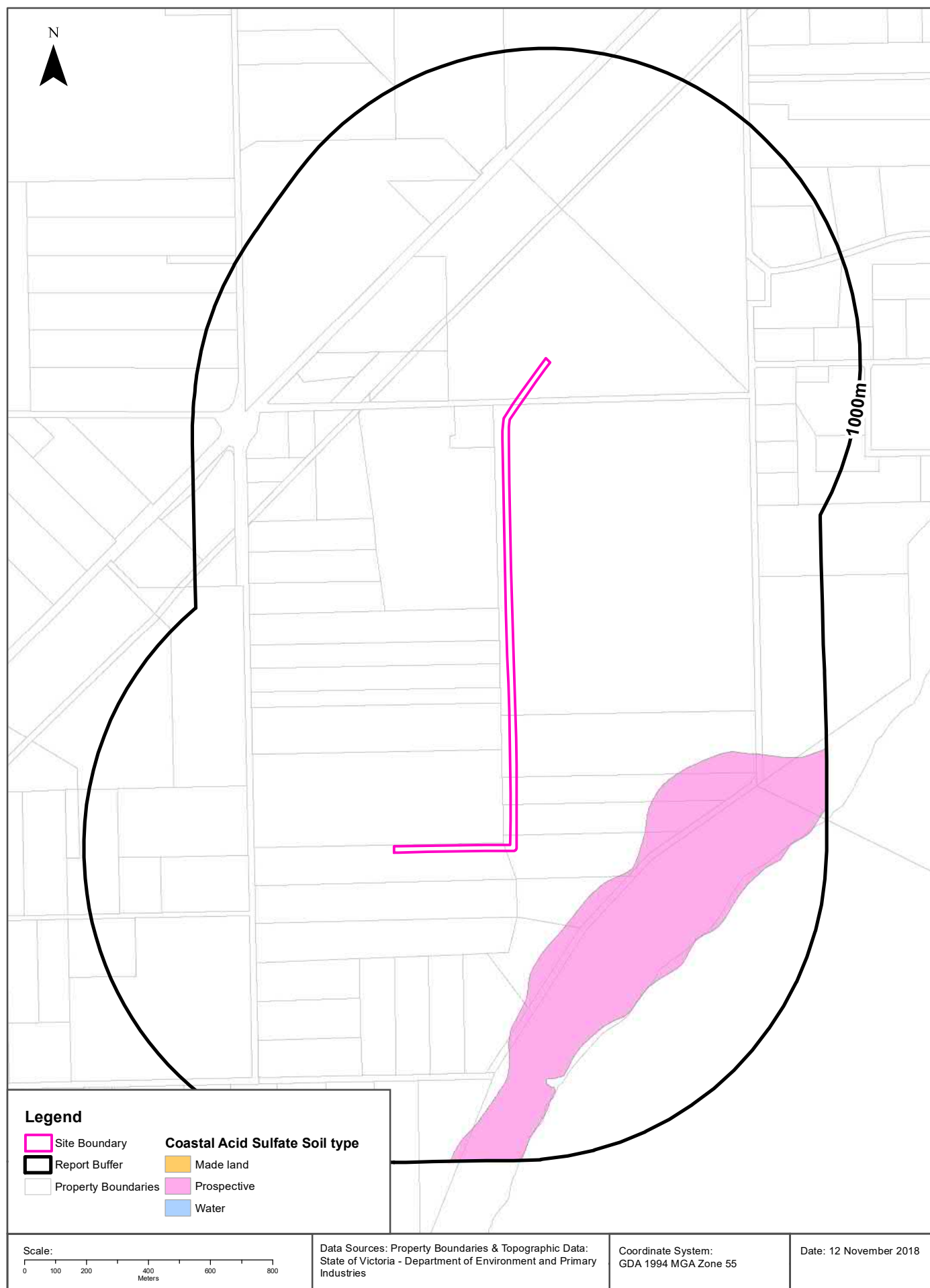
PROBCLASS	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m
A	High Probability of occurrence. >70% chance of occurrence.	395m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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# Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





## Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Coastal Acid Sulfate Soils

What are the on-site Coastal Acid Sulfate Soil types?

Coastal Acid Sulfate Soil Types
There are no Acid Sulfate areas onsite

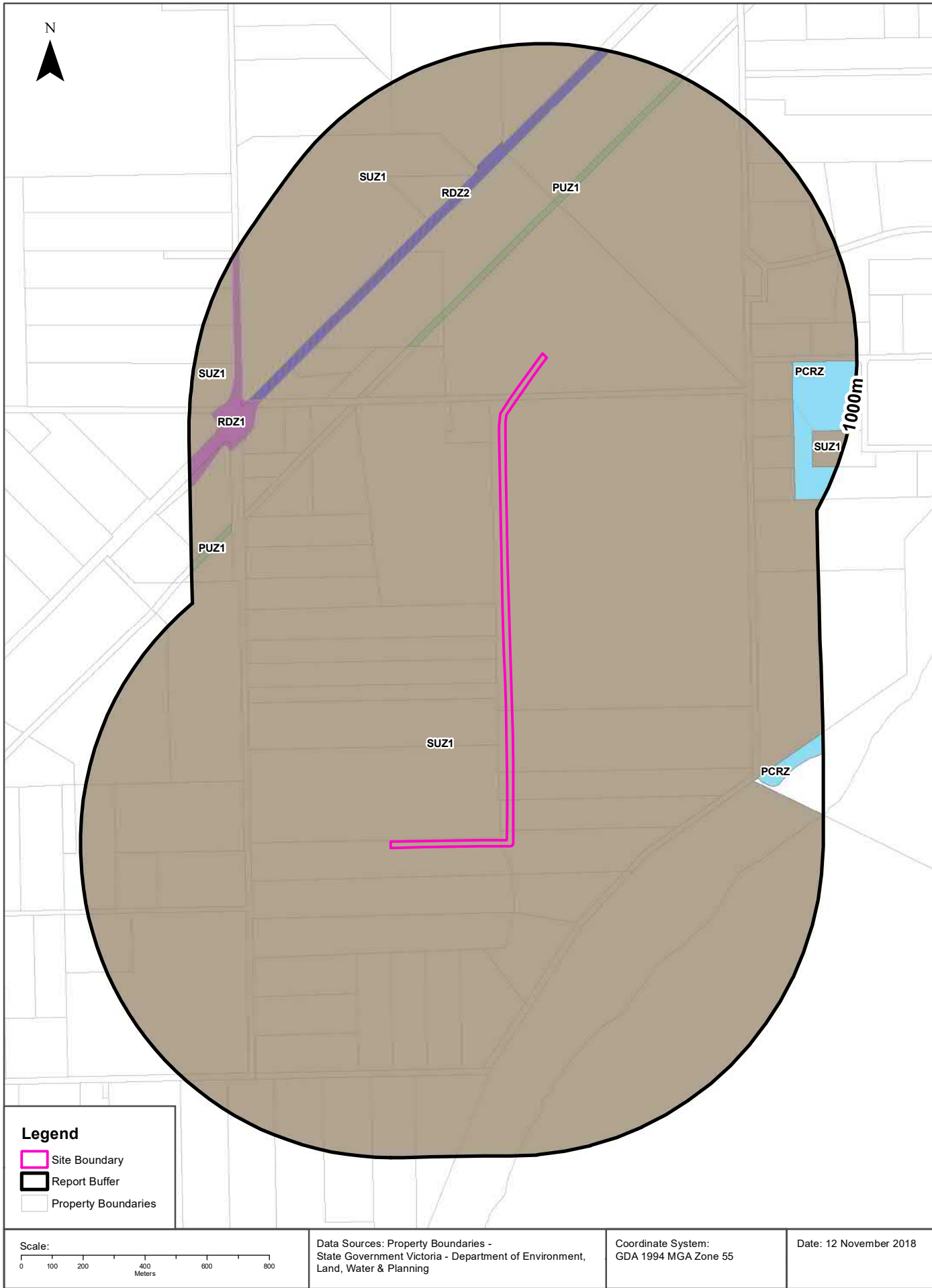
What are the Coastal Acid Sulfate Soil types within the dataset buffer?

Coastal Acid Sulfate Soil Types	Distance	Direction
Prospective	276m	South East

Coastal Acid Sulfate Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



## Planning Zones

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Planning Zones

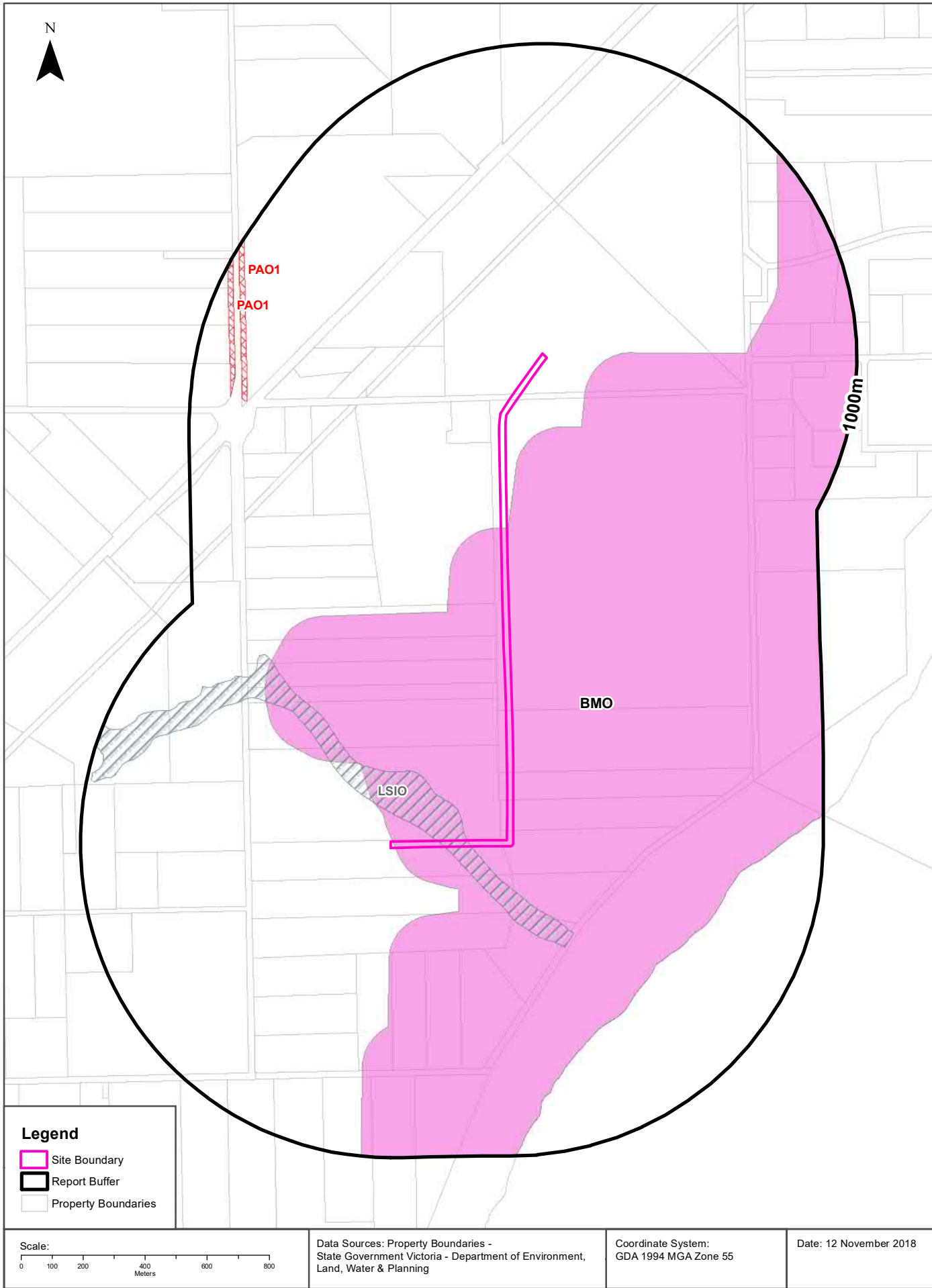
Planning zones within the dataset buffer:

Zone Code	Description	Distance	Direction
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	0m	Onsite
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	305m	North
RDZ2	ROAD ZONE - CATEGORY 2	536m	North
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	567m	North
RDZ1	ROAD ZONE - CATEGORY 1	767m	South West
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	787m	North East
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	866m	North West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	868m	West
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	887m	North East

Planning Zone Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)





## Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Planning Overlays

Planning overlays within the dataset buffer:

Zone Code	Description	Distance	Direction
BMO	BUSHFIRE MANAGEMENT OVERLAY	0m	Onsite
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	0m	Onsite
PAO1	PUBLIC ACQUISITION OVERLAY 1	817m	North West
PAO1	PUBLIC ACQUISITION OVERLAY 1	866m	North West

Planning Overlay Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

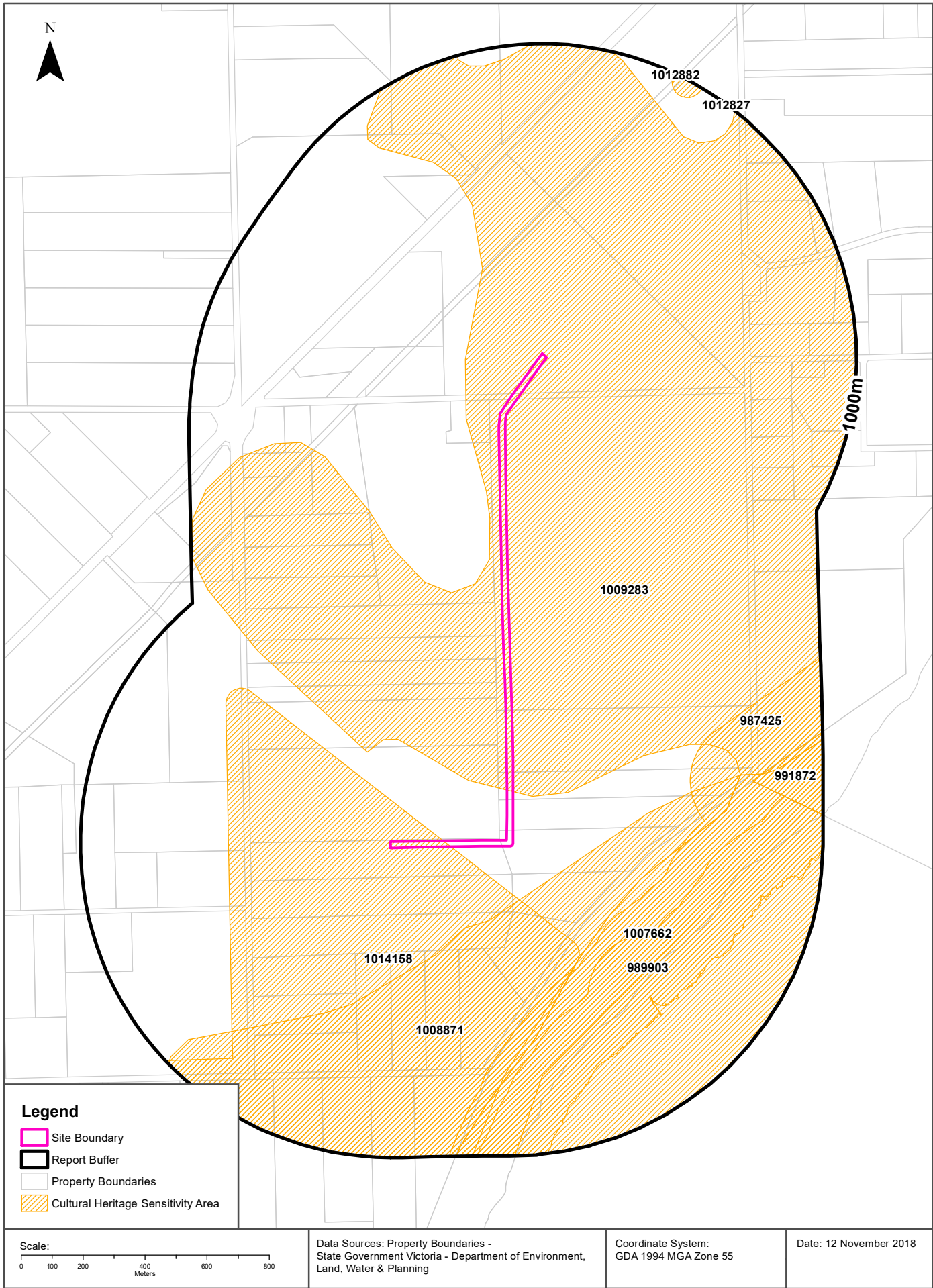
### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Victorian Heritage Register

What are the Victorian Heritage Register items located within the dataset buffer?:

VHR Number	Description	Distance	Direction
N/A	No records within buffer		

Victorian Heritage Register Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Cultural Heritage Sensitivity

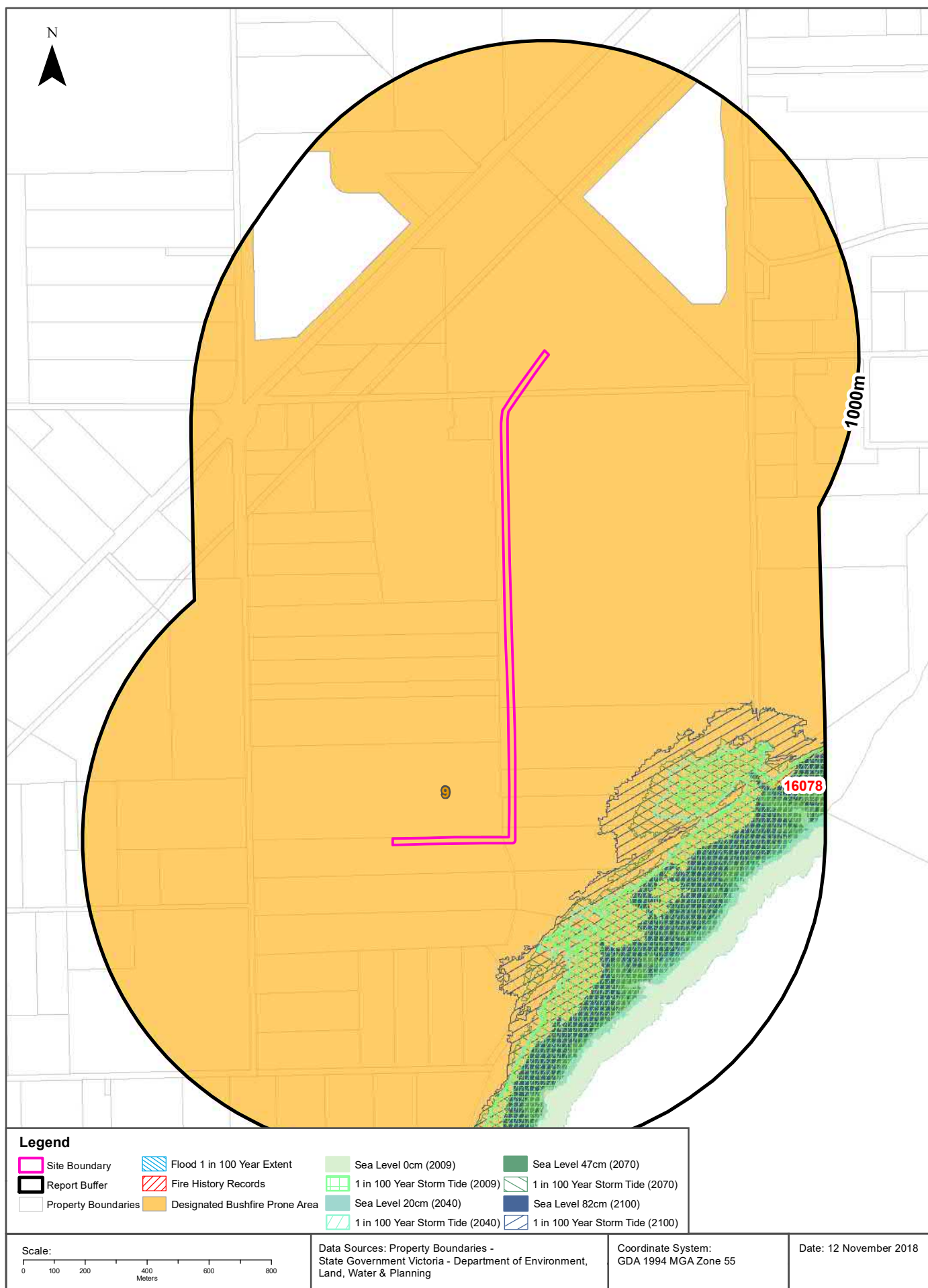
Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2007, within the dataset buffer:

Map Id	Distance	Direction
1009283	0m	Onsite
1014158	0m	Onsite
1008871	159m	South
1007662	388m	North East
987425	400m	South East
989903	459m	South
991872	771m	North East
1012882	944m	North
1012827	999m	North East

Cultural Heritage Sensitivity Data Custodian: State Government Victoria - Dept of Planning and Community Development  
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**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)**



## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
9	Designated Bushfire Prone Area	LEGL./17-396	MORNINGTON PENINSULA	02/06/2017	0m	Onsite

Bushfire Prone Area Data Custodian: State Government Victoria - Dept of Transport, Planning & Local Infrastructure  
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## Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
16078	BURN	B200599R14	2005	R14		FUEL REDUCTION	90-100	18/02/2005	835m	East

Fire History Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records within buffer					

Flood Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

## Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

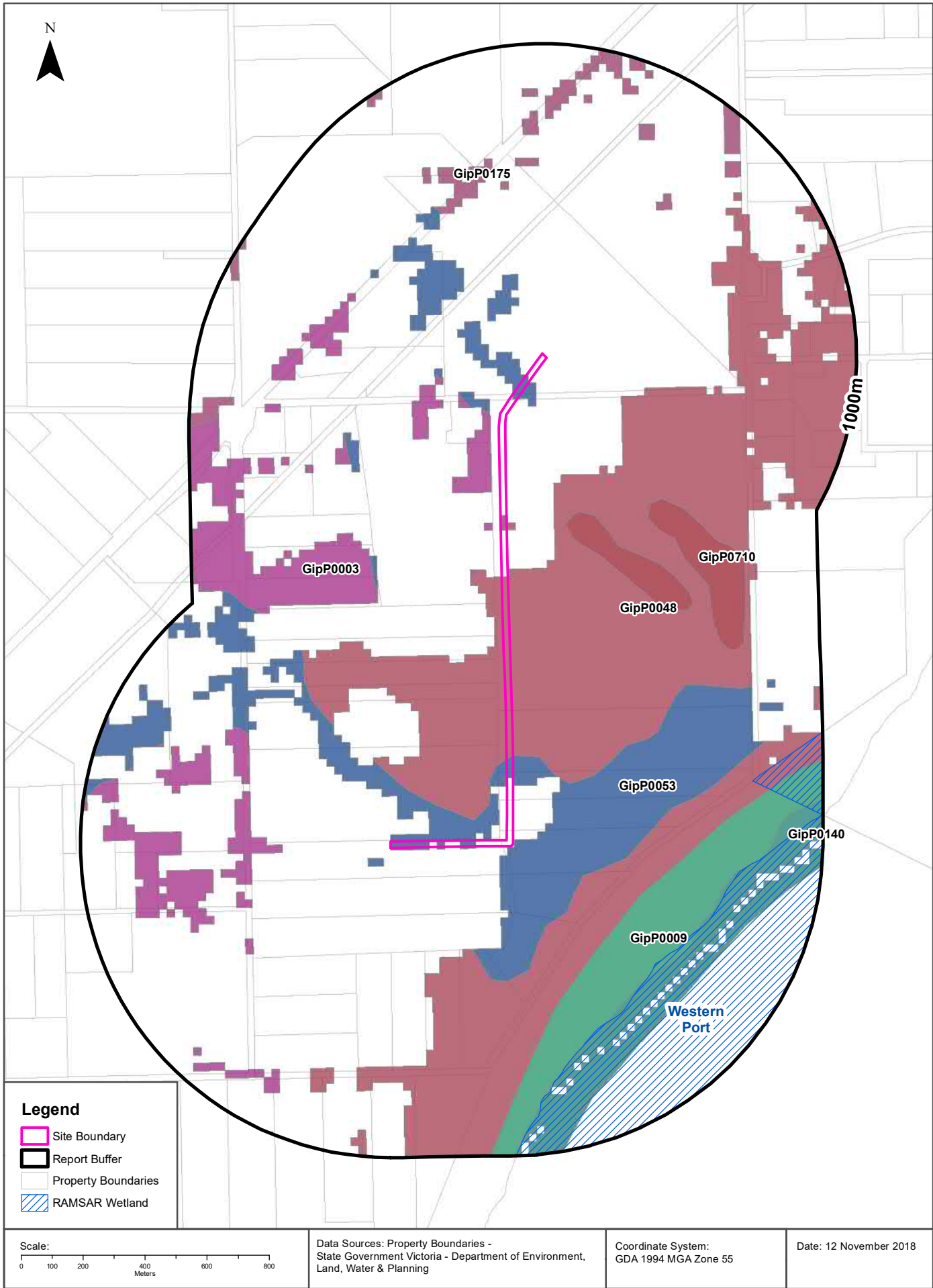
Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	249m	East
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	277m	North East
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	290m	South East
Current (2009) inundation to 1-in-100 year storm tide level	314m	South East
Projected 82cm sea level rise by 2100	415m	South East
Projected 47cm sea level rise by 2070	485m	South East
Projected 20cm sea level rise by 2040	584m	South East
Current (2009) sea level	608m	South East

Victorian Coastal Inundation Sea Level Rise Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Ecological Constraints - Native Vegetation 2005 & RAMSAR Wetlands

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Distance
GipP0003	Damp Sands Herb-rich Woodland	0003	Herb-rich Woodlands	Damp Sands	Gippsland Plain	Vulnerable	Common	0m
GipP0048	Heathy Woodland	0048	Heathy Woodlands	Dry and/or better drained	Gippsland Plain	Least Concern	Common	0m
GipP0053	Swamp Scrub	0053	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	0m
GipP0710	Damp Heathland	0710	Heathlands	Not well drained	Gippsland Plain	Rare	Rare	188m
GipP0009	Coastal Saltmarsh	0009	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Common	421m
GipP0175	Grassy Woodland	0175	Lower Slopes or Hills Woodlands	Grassy	Gippsland Plain	Endangered	Common	532m
GipP0140	Mangrove Shrubland	0140	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Naturally Restricted	608m

Native Vegetation Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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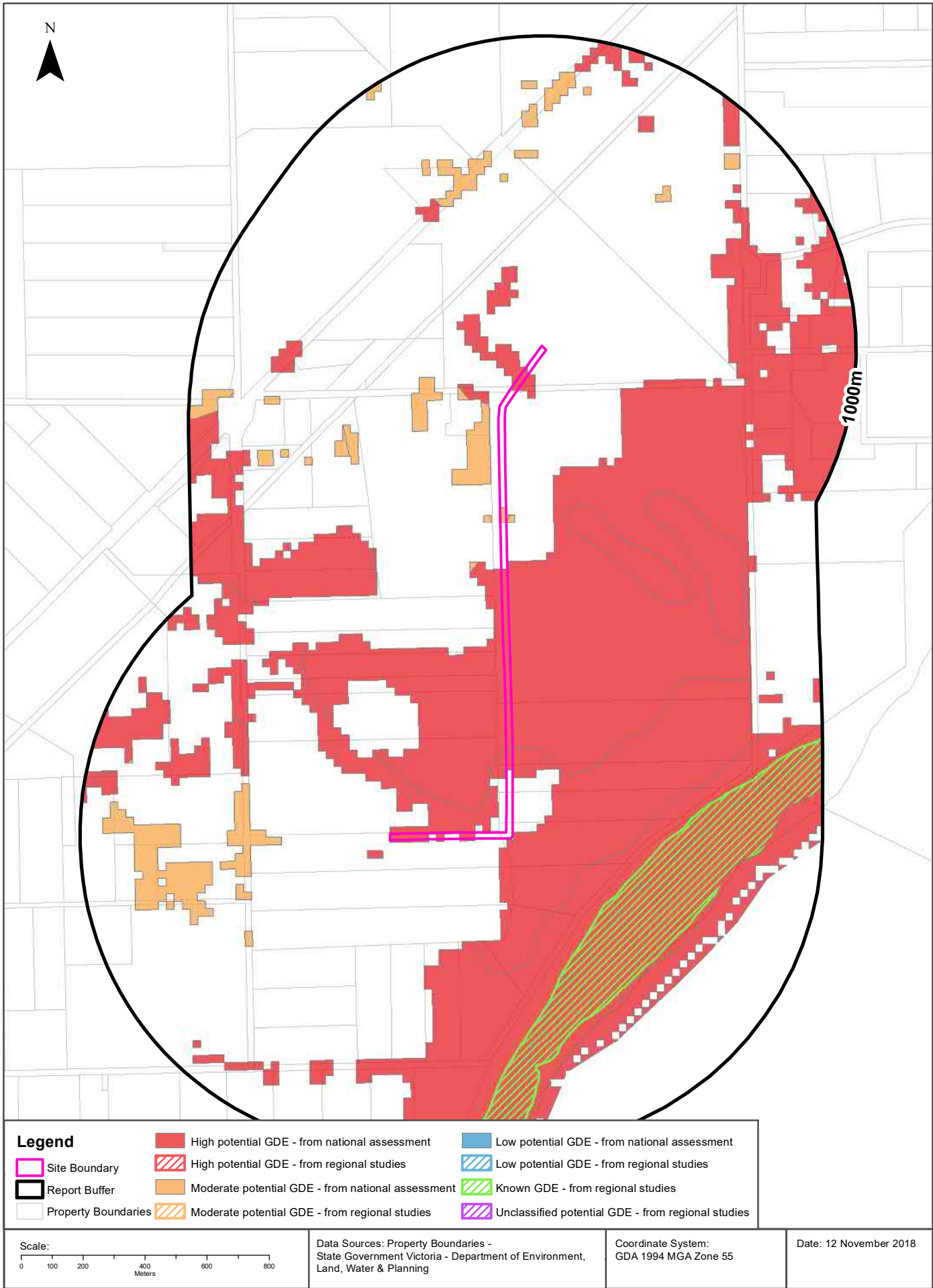
### RAMSAR Wetlands

What RAMSAR wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
10	Western Port	Western Port	599m	South East

RAMSAR Wetland Area Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Groundwater Dependent Ecosystems Atlas

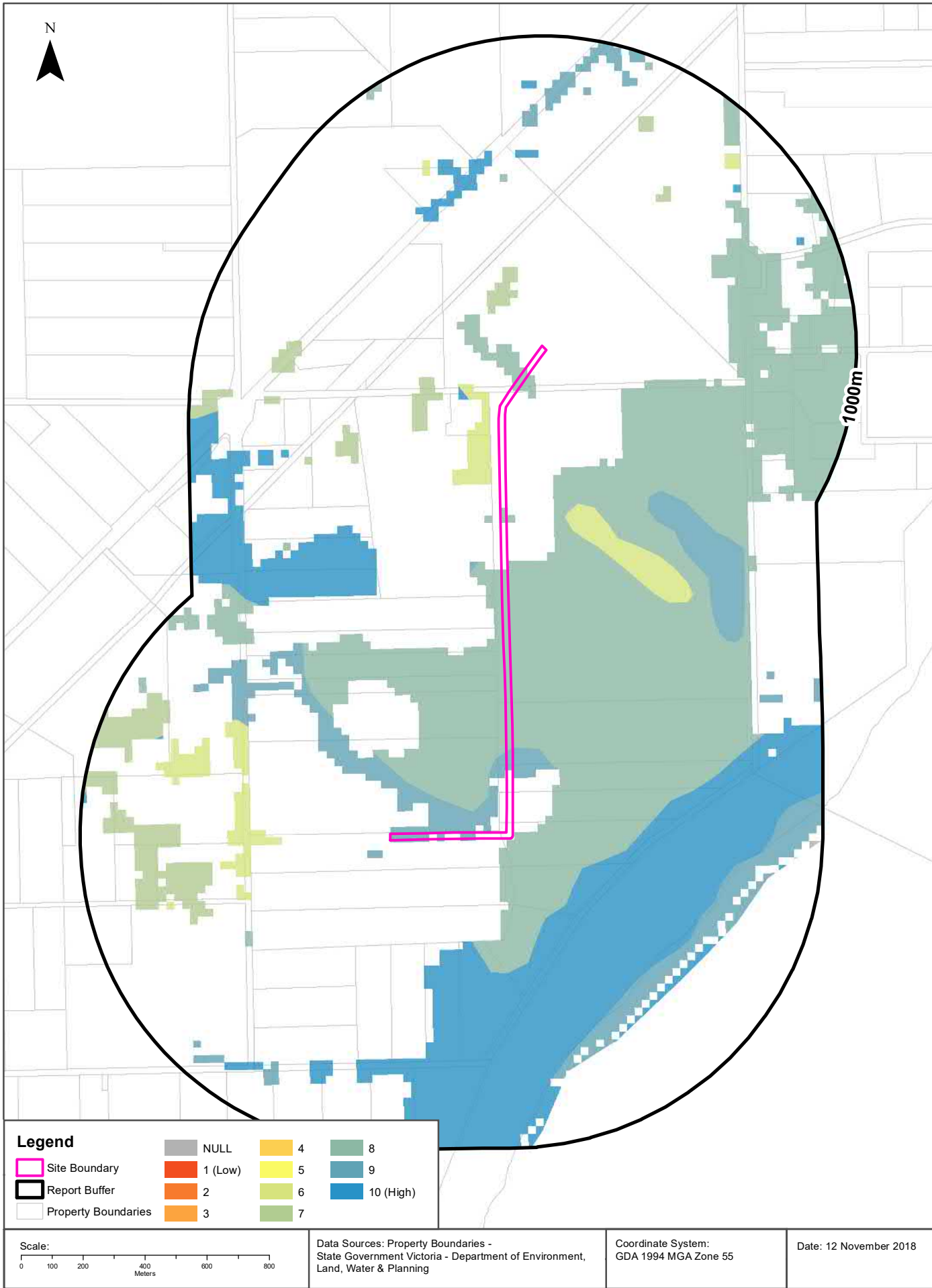
What GDEs exist within the dataset buffer?

GDE Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		Moderate potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Aquatic		Known GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		367m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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# Inflow Dependent Ecosystems Likelihood

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 8)

### Inflow Dependent Ecosystems Likelihood

What IDEs exist within the dataset buffer?

GDE Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		6	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	27m
Terrestrial		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	100m
Terrestrial		7	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	164m
Aquatic		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		367m
Aquatic	Gordon Rolph Reserve	8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		794m
Terrestrial		0		Vegetation		954m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology  
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# LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

**Address: Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810  
(Section 9)**

**Date: 12 Nov 2018 15:31:35**

**Reference: LS004578 EP**

**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. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

## Table of Contents

Location Confidences.....	2
Dataset Listings .....	3
Site Location Aerial .....	5
Topographic Features.....	6
Elevation Contours.....	7
EPA Records.....	8
Waste Management Facilities .....	15
Former Gasworks.....	17
Historical Business Activities.....	18
Historical Aerial Imagery & Maps.....	25
Features of Interest .....	46
Hydrogeology & Groundwater.....	48
Groundwater Boreholes .....	50
Historical Mining Activity .....	60
Geology .....	61
Soil Types.....	64
Acid Sulfate Soils .....	68
Planning Zones .....	72
Planning Overlays .....	74
Heritage.....	76
Natural Hazards .....	79
Ecological Constraints.....	82
Terms & Conditions.....	88

## 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:

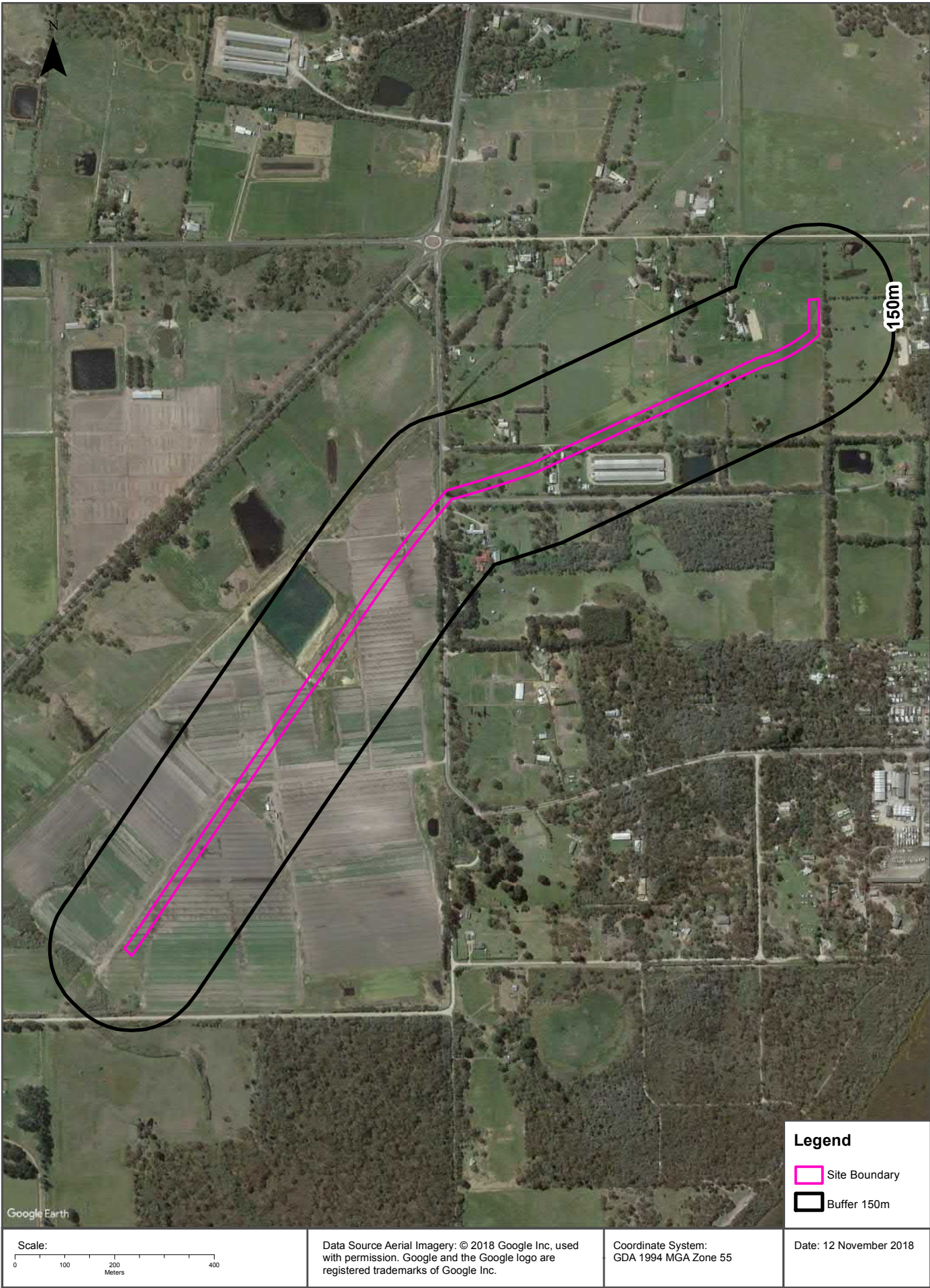
Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	08/10/2018	08/10/2018	Quarterly	-	-	-	-
Current Priority Sites	Environment Protection Authority (Vic)	17/10/2018	31/08/2018	Monthly	1000	0	0	1
Former Priority Sites & other Pollution Notices	Environment Protection Authority (Vic)	19/10/2018	19/10/2018	Monthly	1000	0	0	2
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	1
Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	19/09/2018	Monthly	1000	0	0	1
Former Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
Works Approvals	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	06/11/2018	07/03/2017	Quarterly	1000	0	0	1
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000	0	0	3
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	23/10/2018	23/10/2018	Quarterly	1000	0	0	0
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	06/09/2018	06/09/2018	Quarterly	1000	0	0	1
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000	0	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	3
UBD Business Directory 1960-62 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1960-62 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	6
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
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	1	11
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	30/10/2018	01/10/2018	Quarterly	2000	0	3	54
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	27/07/2018	17/02/2010	As required	2000	0	1	17
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	18/10/2018	20/07/2018	As required	1000	0	0	0
Geological Units 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	2	-	5
Geological Structures 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	1	1	2
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000	2	2	3
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000	0	0	3
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	1	1	20
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	1	1	15
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	0	0
Cultural Heritage Sensitivity	State Government Victoria - Department of Planning and Community Development	12/10/2018	12/10/2018	Quarterly	1000	2	3	13
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	12/10/2018	16/05/2018	Quarterly	1000	1	1	1
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	28/06/2018	Quarterly	1000	0	0	0
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	18/11/2014	Quarterly	1000	0	0	0
Victorian Coastal Inundation Sea Level Rise	Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000	0	2	8
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000	1	2	6
RAMSAR Wetlands	State Government Victoria - Department of Environment, Land, Water & Planning	28/03/2017	24/06/2013	None planned	1000	0	0	1
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	1	2	5
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	1	3	9



Aerial Imagery 2017

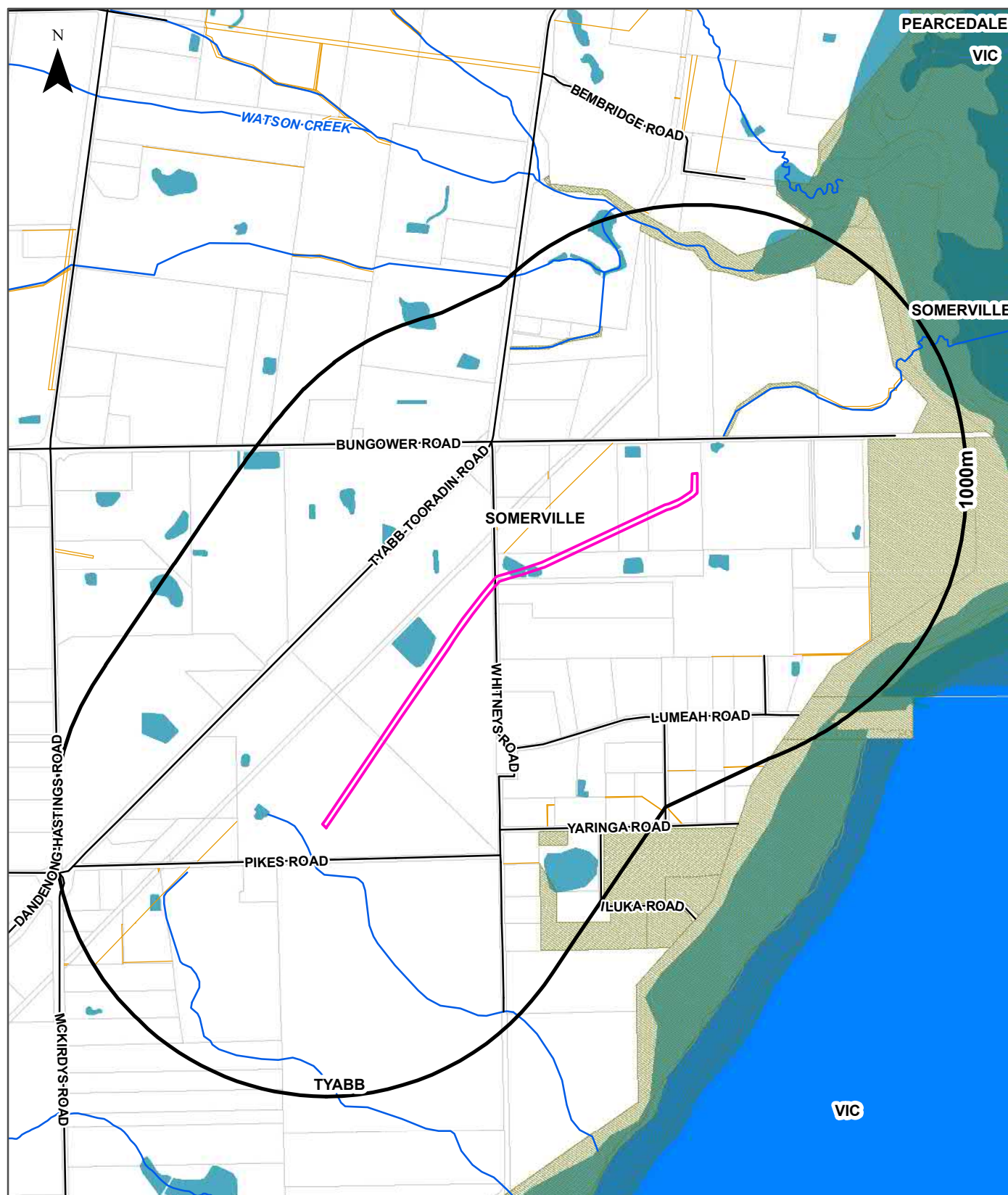
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





# Topographic Data

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Legend

- |                     |                            |               |                           |             |
|---------------------|----------------------------|---------------|---------------------------|-------------|
| Site Boundary       | Water Area                 | Major Road    | Railway                   | Watercourse |
| Report Buffer       | Crown or Commonwealth Land | Road          | Light Rail                | Easement    |
| Property Boundaries | Statewide Forest           | Track/Pathway | Rail - Underground/Tunnel |             |

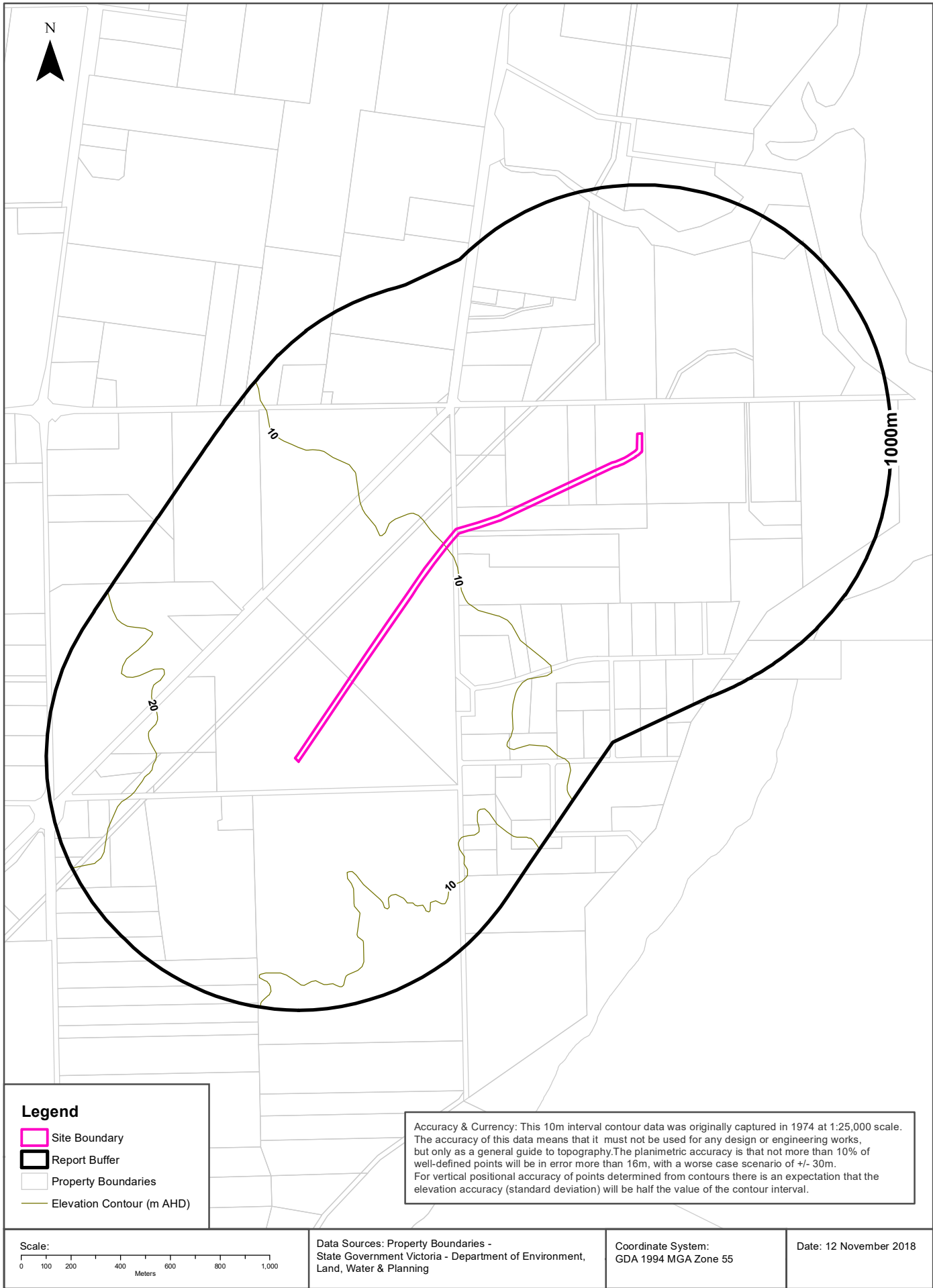
Scale:  
0 100 200 400 600 800 1,000  
Meters

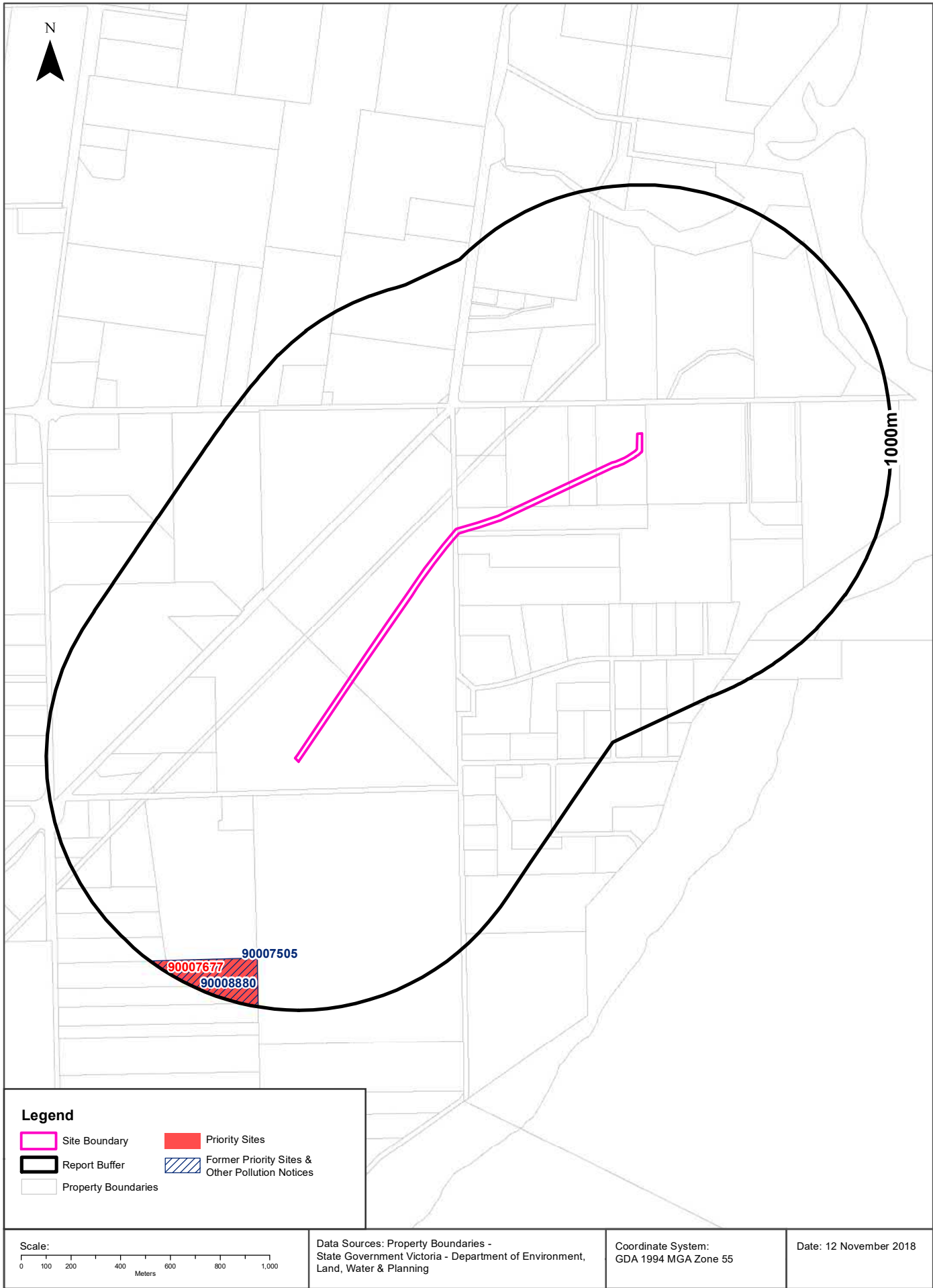
Data Sources: Property Boundaries -  
State Government Victoria - Department of Environment,  
Land, Water & Planning

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 12 November 2018

Elevation Contours (m AHD) 10m Interval at 1:25,000  
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
90007677	15-21 MCKIRDYS RD	TYABB	Former Landfill. Requires ongoing management.	Premise Match	808m	South West

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

### Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

**Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.**

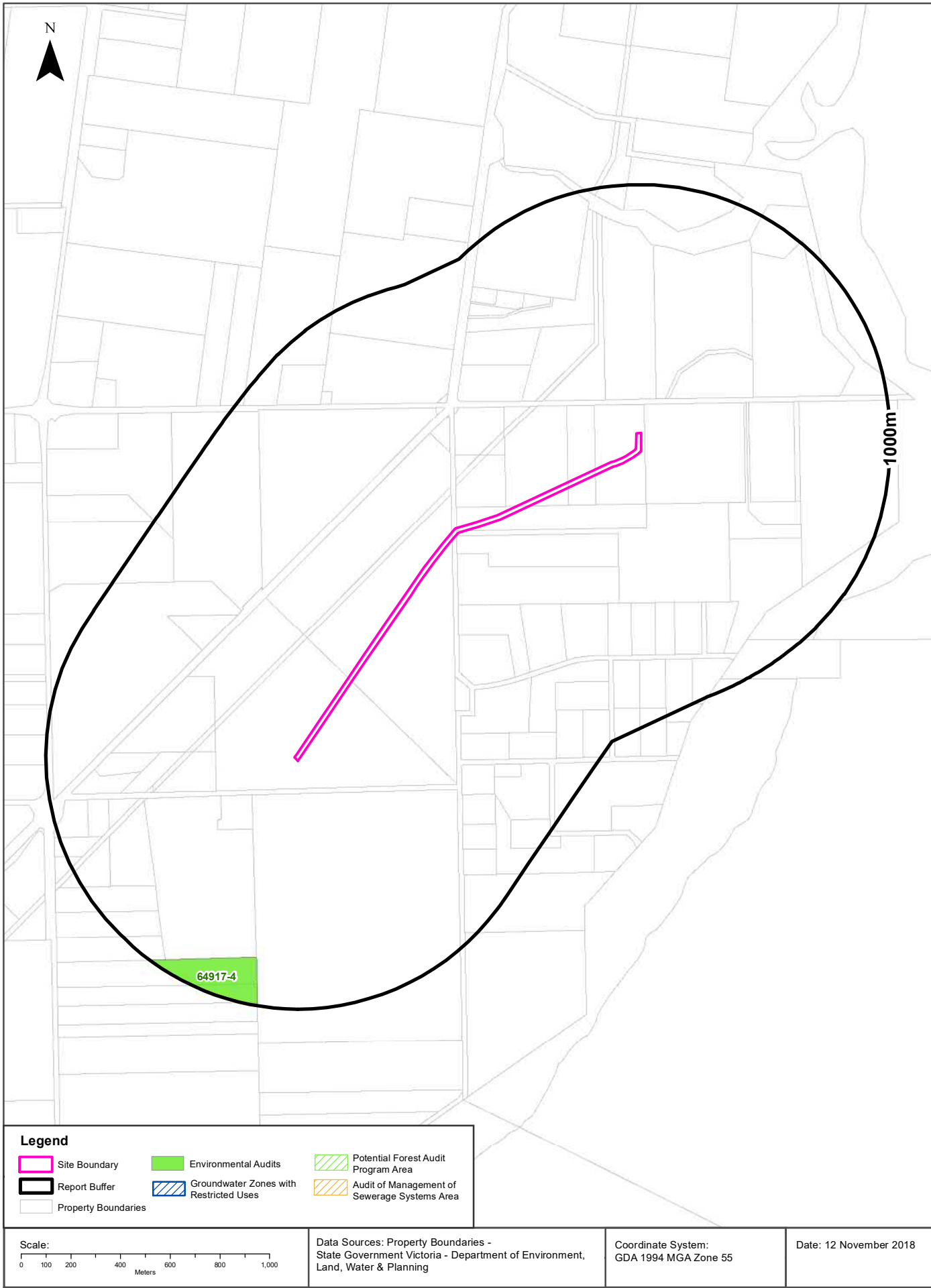
Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
90008880	Monitoring, Rehab' & Aftercare PAN	MORNINGTON PENINSULA SHIRE COUNCIL [TYABB] LTD	15-21 MCKIRDYS RD / TYABB VIC 3913	TYABB	Current Pollution Notice		13/07/2018	Premise Match	808m	South West
90007505	Monitoring, Rehab' & Aftercare PAN	MORNINGTON PENINSULA SHIRE COUNCIL [TYABB]	15-21 MCKIRDYS RD	TYABB	Current Pollution Notice		07/06/2018	Premise Match	808m	South West

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)



# EPA Records - Audit Reports & GQRUZ

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Loc Conf	Distance	Direction
64917-4	8005111	15-21 MCKIRDYS RD, TYABB VIC 3913 15- 21 MCKIRDYS RD	15-21 MCKIRDYS RD, TYABB VIC 3913 15-21 MCKIRDYS RD, TYABB	TYABB	11/01/2017	Premise Match	808m	South West

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

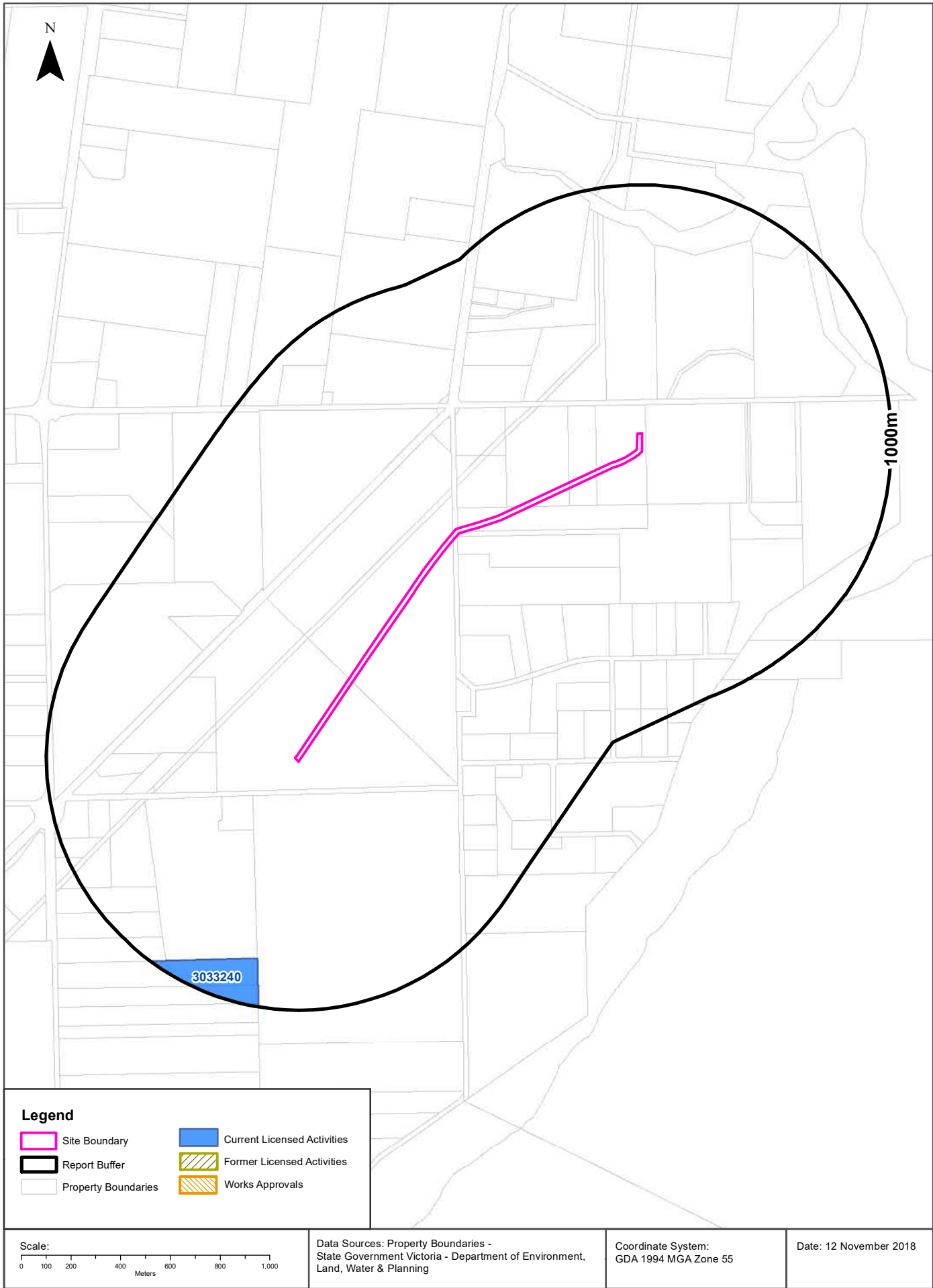
Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Loc Conf	Distance	Direction
N/A	No records in buffer						

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

# EPA Records - Licensed Activities & Works Approvals

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
3033240	74219	Amalgamated licence	MORNINGTON PENINSULA SHIRE COUNCIL	70422	15-21 MCKIRDYS RD	TYABB VIC 3913	A05 Landfills; A07 Composting	Premise Match	808m	South West

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer						

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

## EPA Works Approvals

EPA works approvals that exist within the dataset buffer:

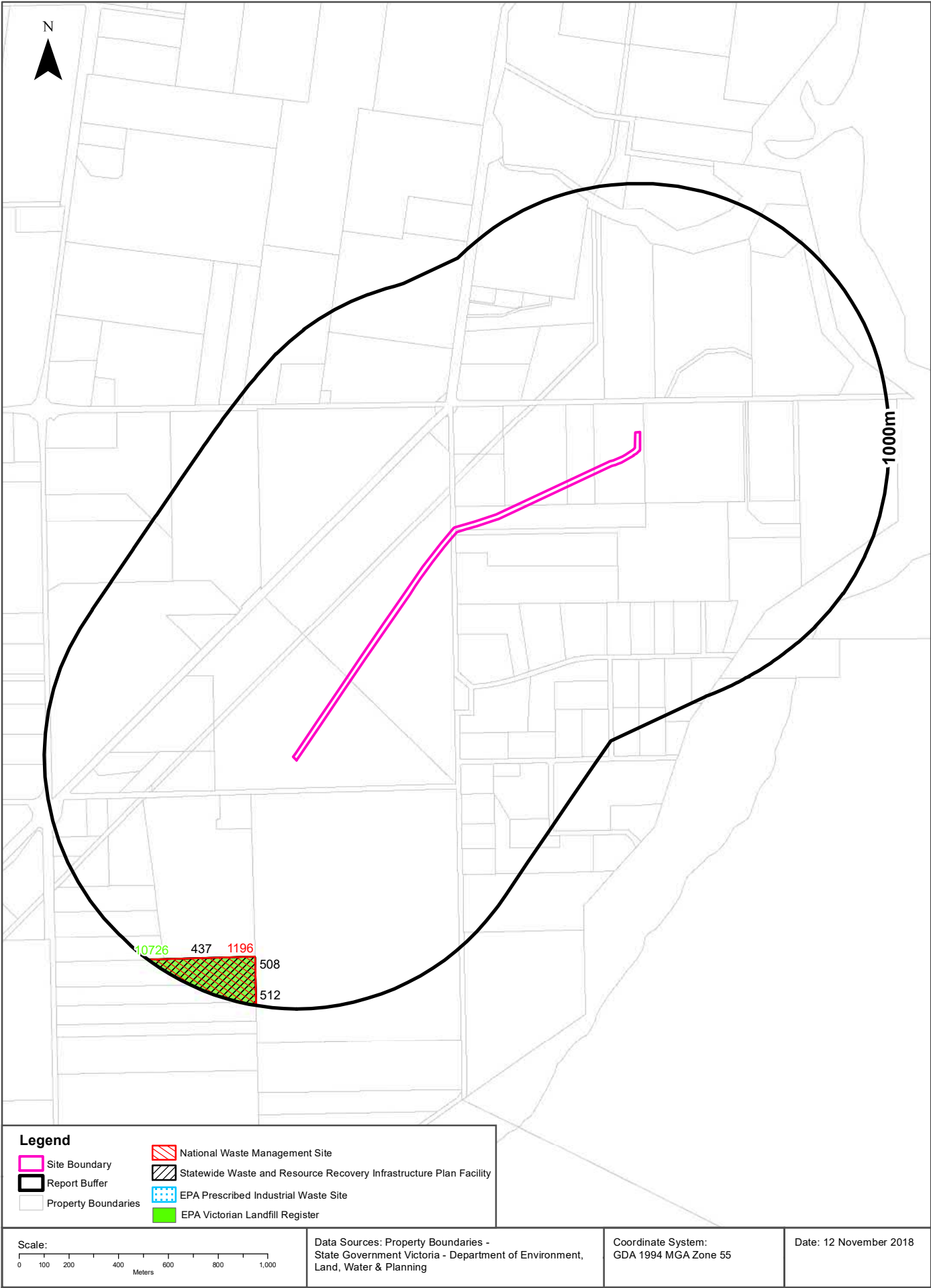
Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
N/A	No records in buffer								

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)



# Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### 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
1196	Mornington Peninsula Shire Council	Municipal Tip	19 McKirdys Road	Hastings	Landfill	Operational				Premise Match	808m	South West

Waste Management Facilities Data Source: Australian Government Geoscience Australia

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### Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
437	Mornington Peninsula Shire Council	Tyabb Landfill - ES469	19 McKirdy's rd	Hastings	Landfill	Putrescible Landfill	Premise Match	808m	South West
508	Mornington Peninsula Shire Council	Tyabb Transfer Station	21 McKirdys Rd	Tyabb East	Municipal Waste	MSW Transfer station	Premise Match	808m	South West
512	Mornington Peninsula Shire Council	Mornington Peninsula Shire Council	19 McKirdy's rd	Tyabb	Organics	Garden Waste	Premise Match	808m	South West

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

### EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste sites within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist' (m)	Direct
N/A	No records in buffer									

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

### EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist' (m)	Direction
10726	MORNINGTON PENINSULA SHIRE COUNCIL	15-21 MCKIRDYS RD TYABB VIC 3913	Closed			As Supplied	806m	South West

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

## Former Gasworks

**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)**

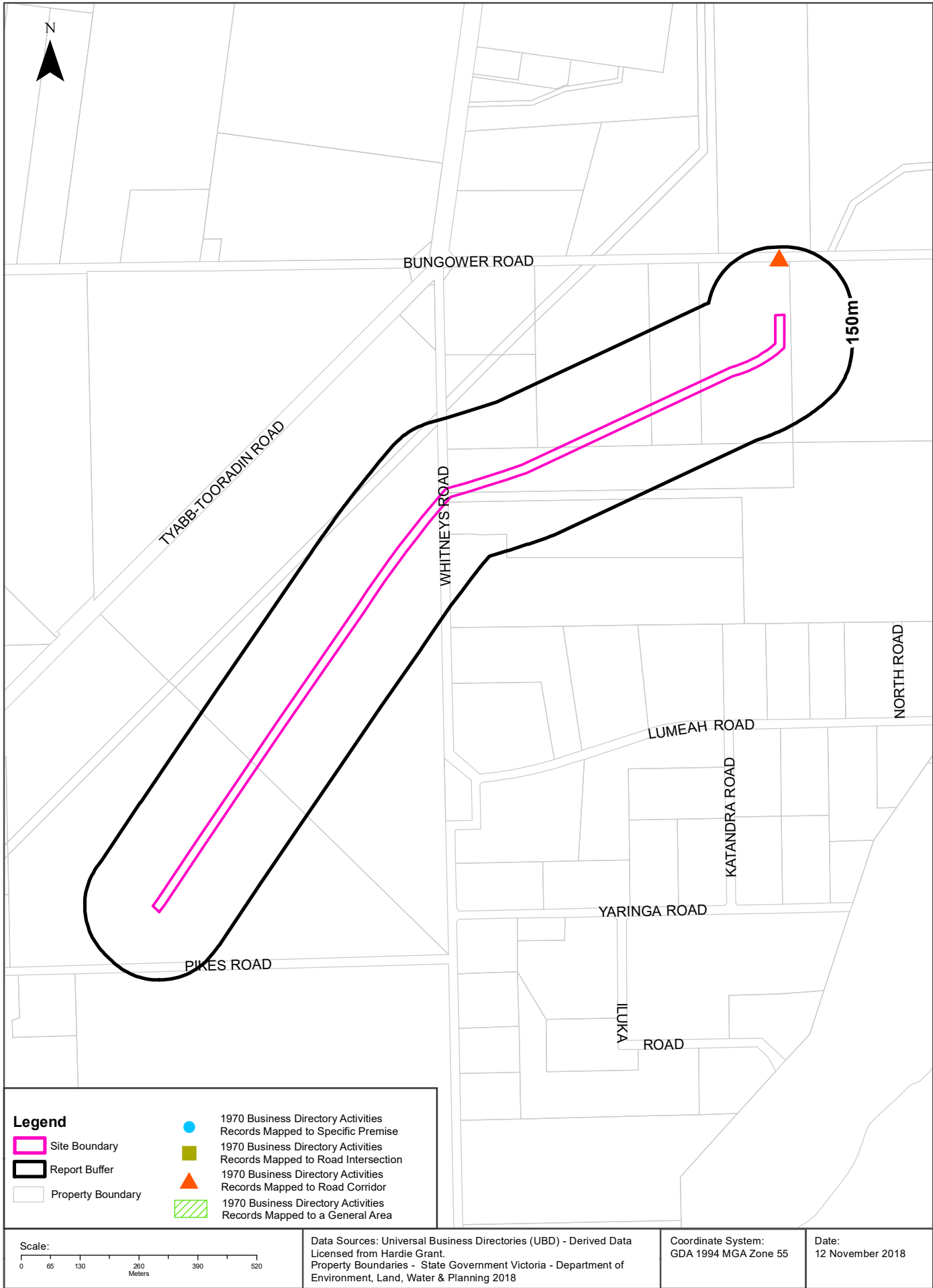
### Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:

Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources



## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### 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:

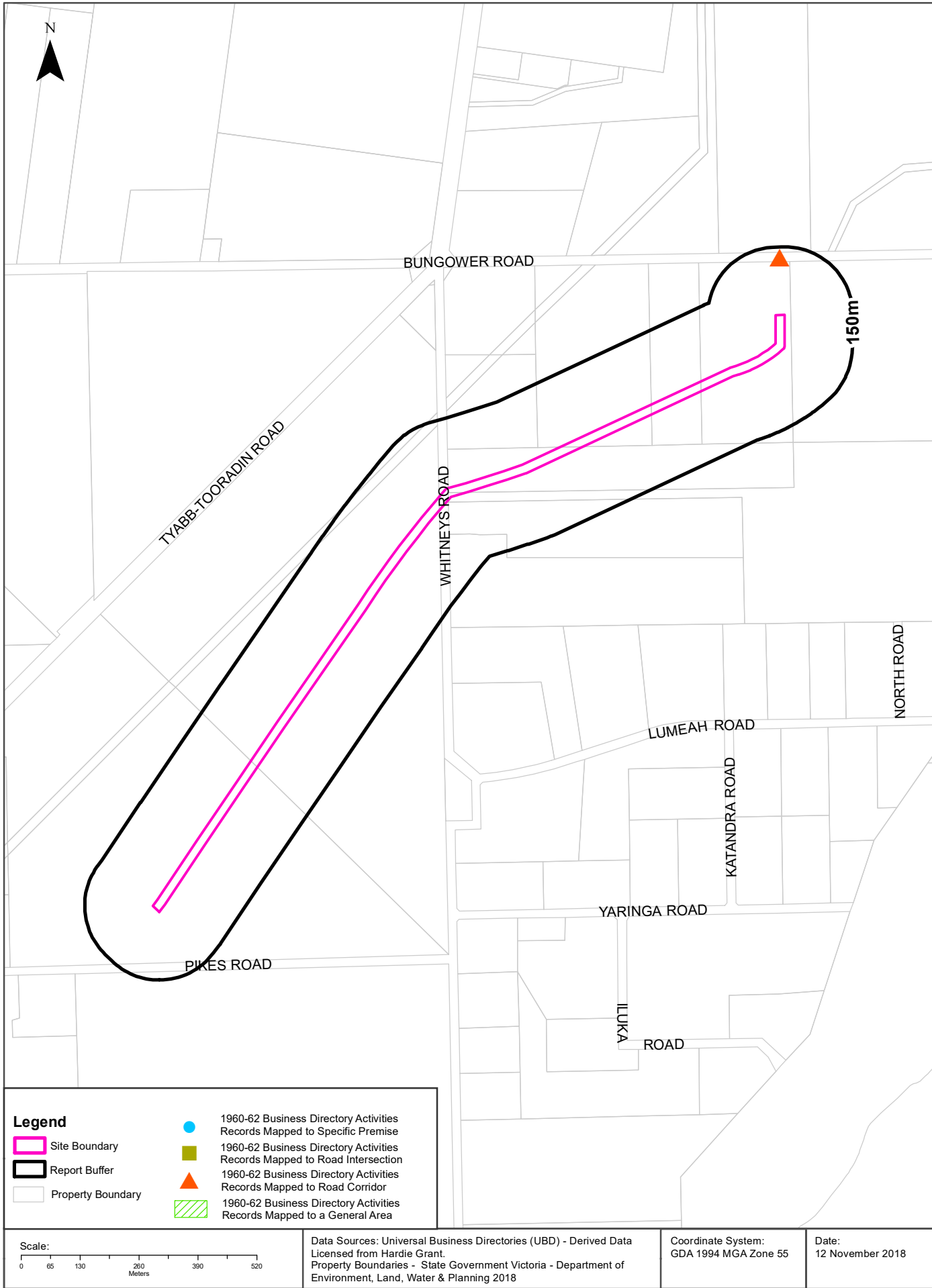
Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
APIARISTS	Johnson, Bruce,. Bungower Rd. Somerville	45506	Road Match	118m
PIG STUD FARMS	Southmead Farm,. Bungower Rd. Somerville	45573	Road Match	118m
POULTRY TARMS	Southmead Farm,. Bungower Rd. Somerville	45578	Road Match	118m

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



# 1960-62 Historical Business Directory Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Historical Business Directories

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

#### 1960-62 Business Directory Records Premise or Road Intersection Matches

Records from the 1960-62 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Directory	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

#### 1960-62 Business Directory Records Road or Area Matches

Records from the 1960-62 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.	Directory	Location Confidence	Distance to Road Corridor or Area
CARRIERS & CARTAGE CONTRACTORS	Munroe, J., Bungower Rd., Somerville	131800	East Victoria 1961-62	Road Match	118m
CONFECTIONERY SHOPS & MILK BARS	Southmead Farm, Bungower Rd., Somerville	131812	East Victoria 1961-62	Road Match	118m
LIVESTOCK TRANSPORTS	Munroe, J., Bungower Rd., Somerville	131836	East Victoria 1961-62	Road Match	118m
ORCHARDISTS	Southmead Farm, Bungower Rd., Somerville	131849	East Victoria 1961-62	Road Match	118m
PIG STUD FARMS	Southmead Farm, Bungower Rd., Somerville	131852	East Victoria 1961-62	Road Match	118m
POULTRY FARMS	Southmead Farm, Bungower Rd., Somerville	131856	East Victoria 1961-62	Road Match	118m

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

## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### 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:

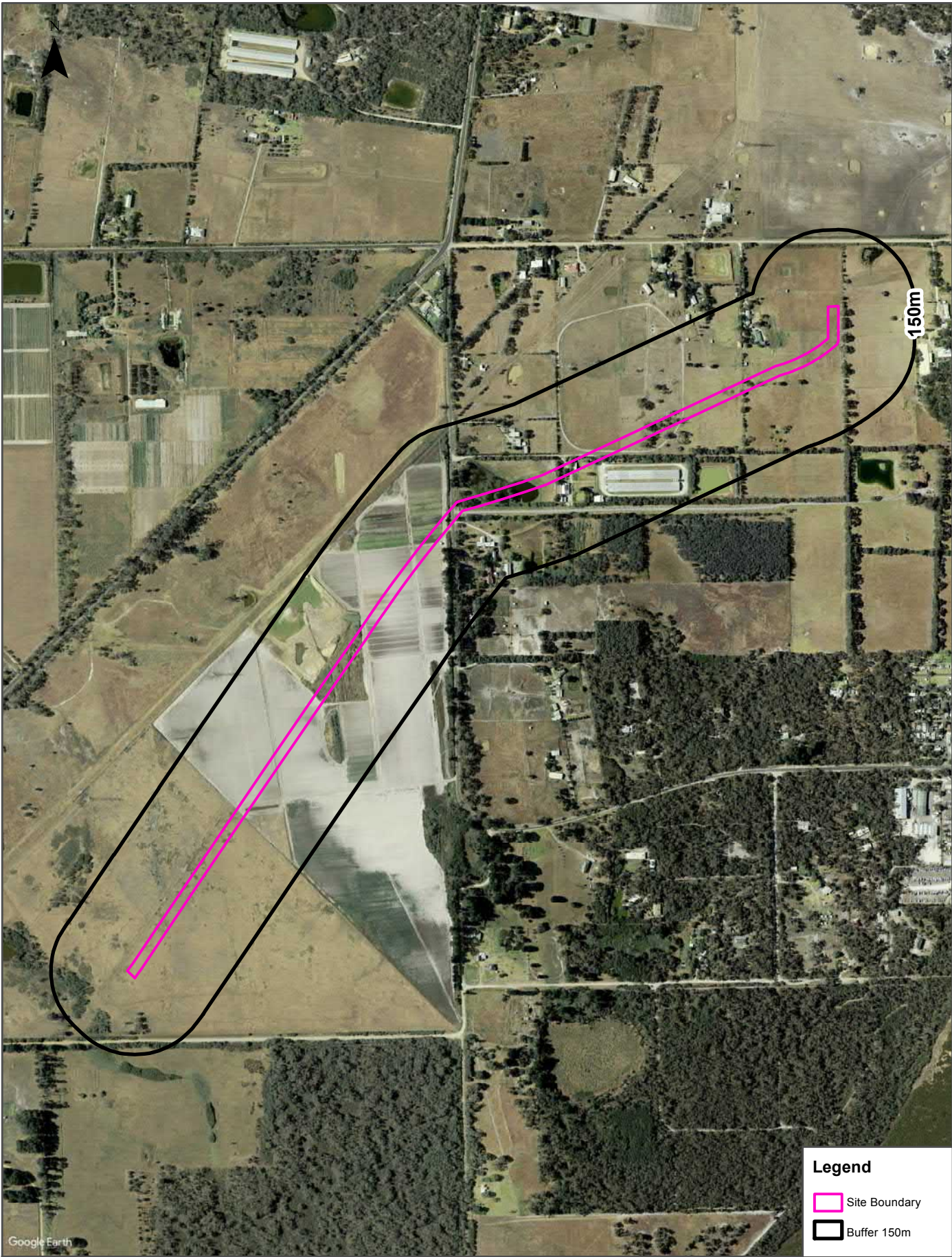
Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer				

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



Aerial Imagery 2009

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

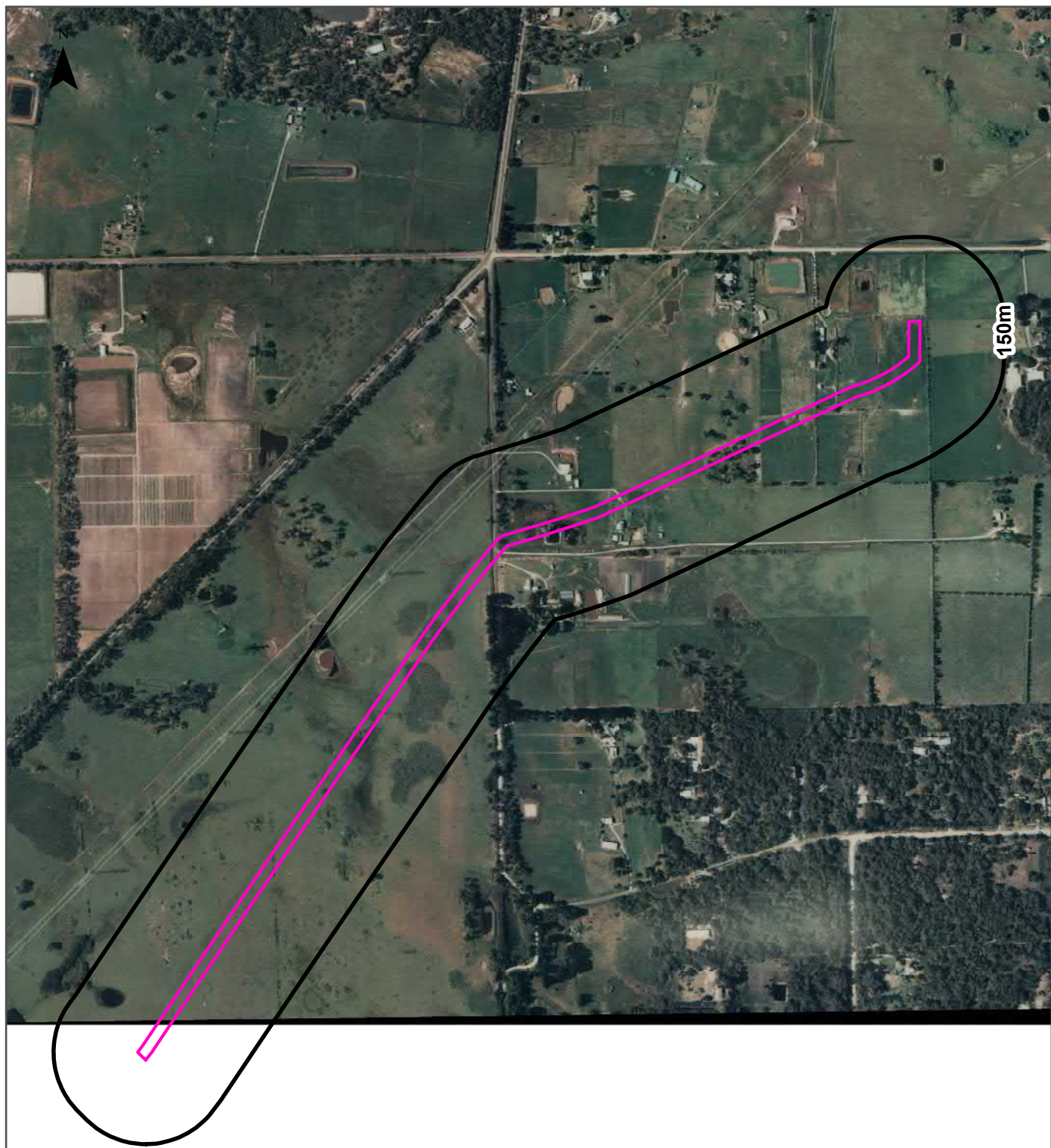


Scale: 0 100 200 400 Meters	Data Source Aerial Imagery: © 2018 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.	Coordinate System: GDA 1994 MGA Zone 55	Date: 12 November 2018
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Aerial Imagery 1989

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



**Legend**

 Site Boundary

 Buffer 150m

<p>Scale:</p> <p>0 50 100 200 300 400 500</p> <p>Meters</p>	<p>Data Source Aerial Imagery: © Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program) and Photomapping Services (2018)</p>	<p>Coordinate System: GDA 1994 MGA Zone 55</p>	<p>Date: 09 November 2018</p>
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# Aerial Imagery 1989

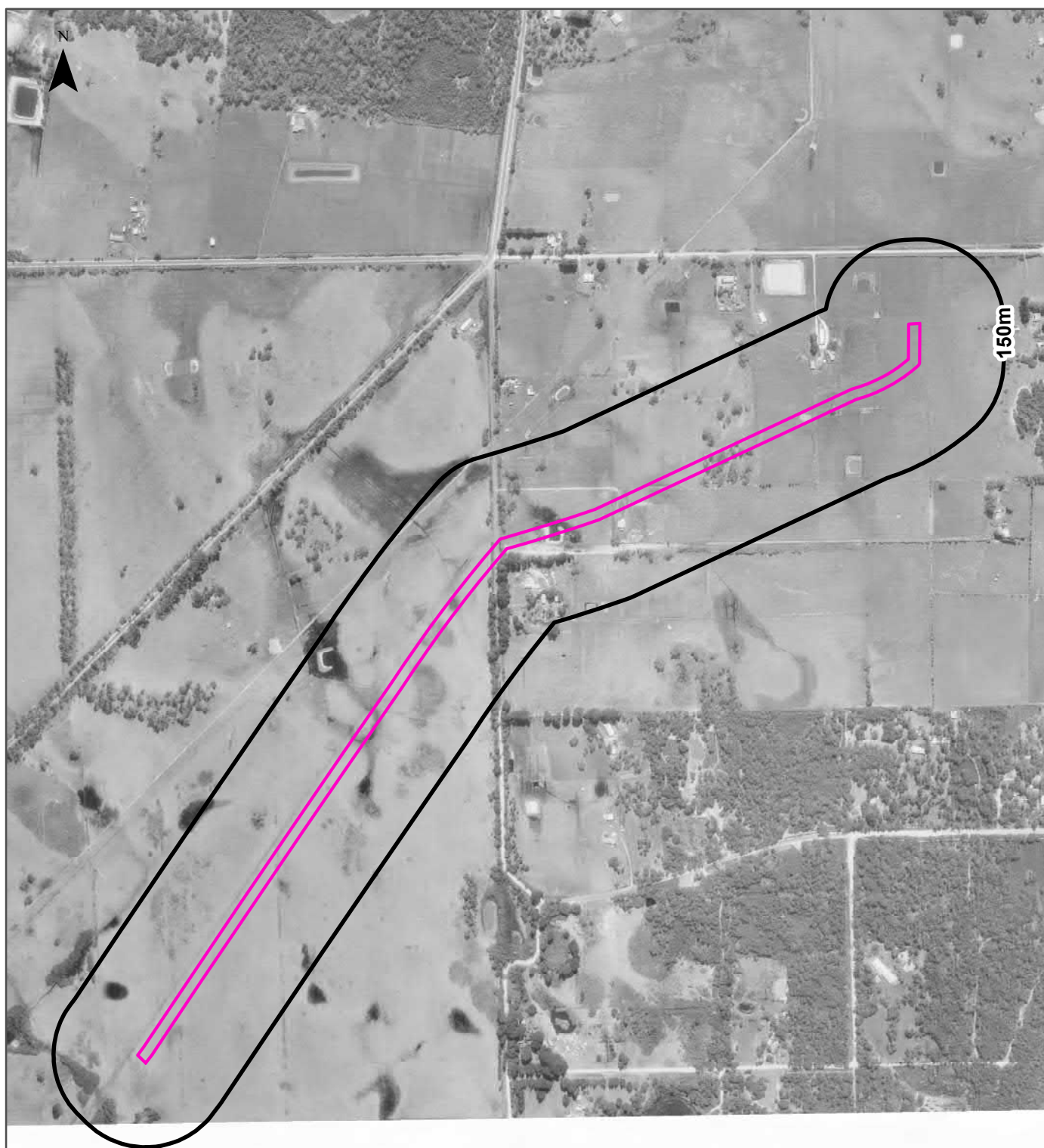
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





## Aerial Imagery 1985

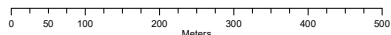
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



### Legend

-  Site Boundary
-  Buffer 150m

Scale:



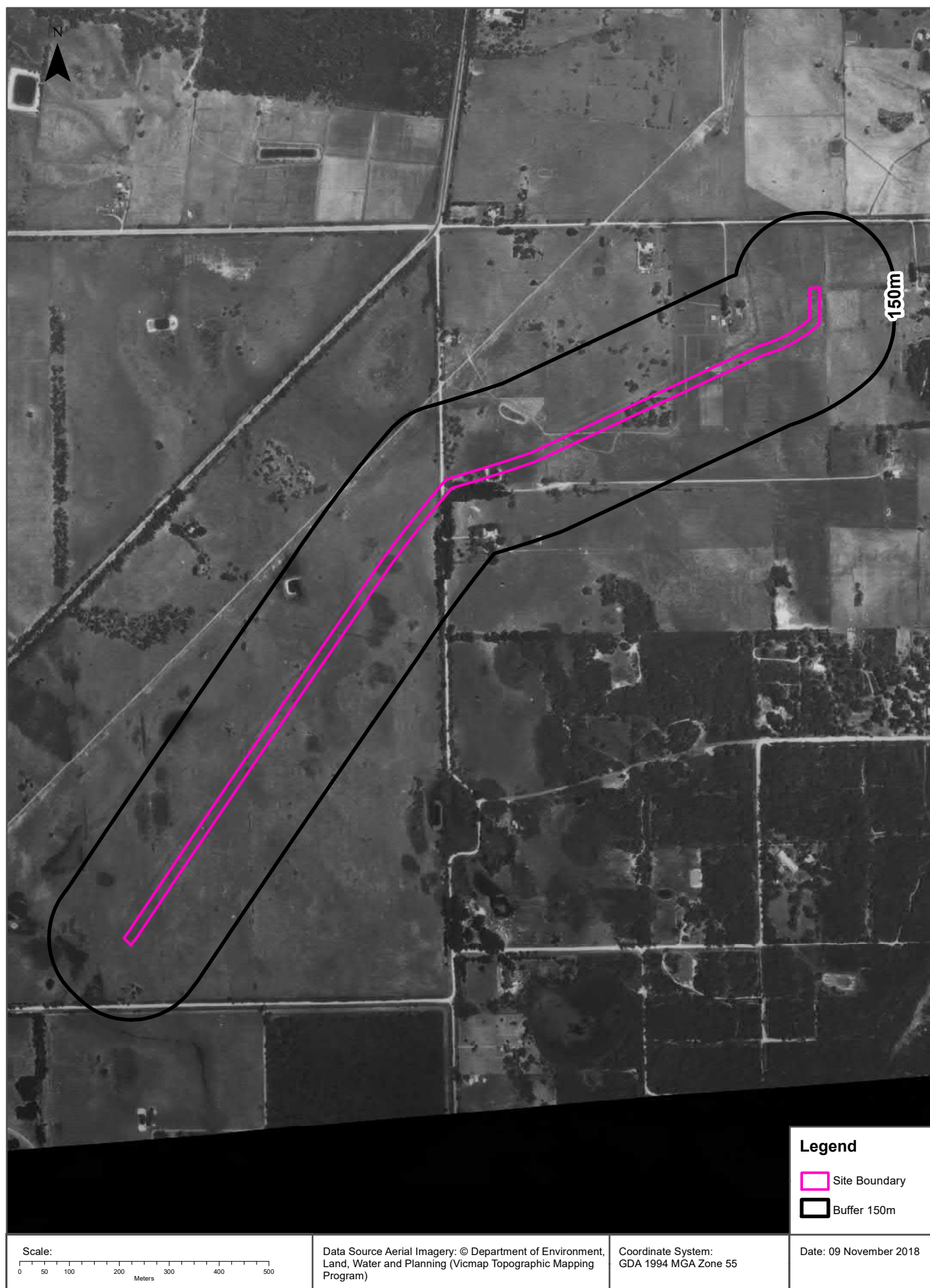
Data Source Aerial Imagery: © Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program)

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 09 November 2018

## Aerial Imagery 1979

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





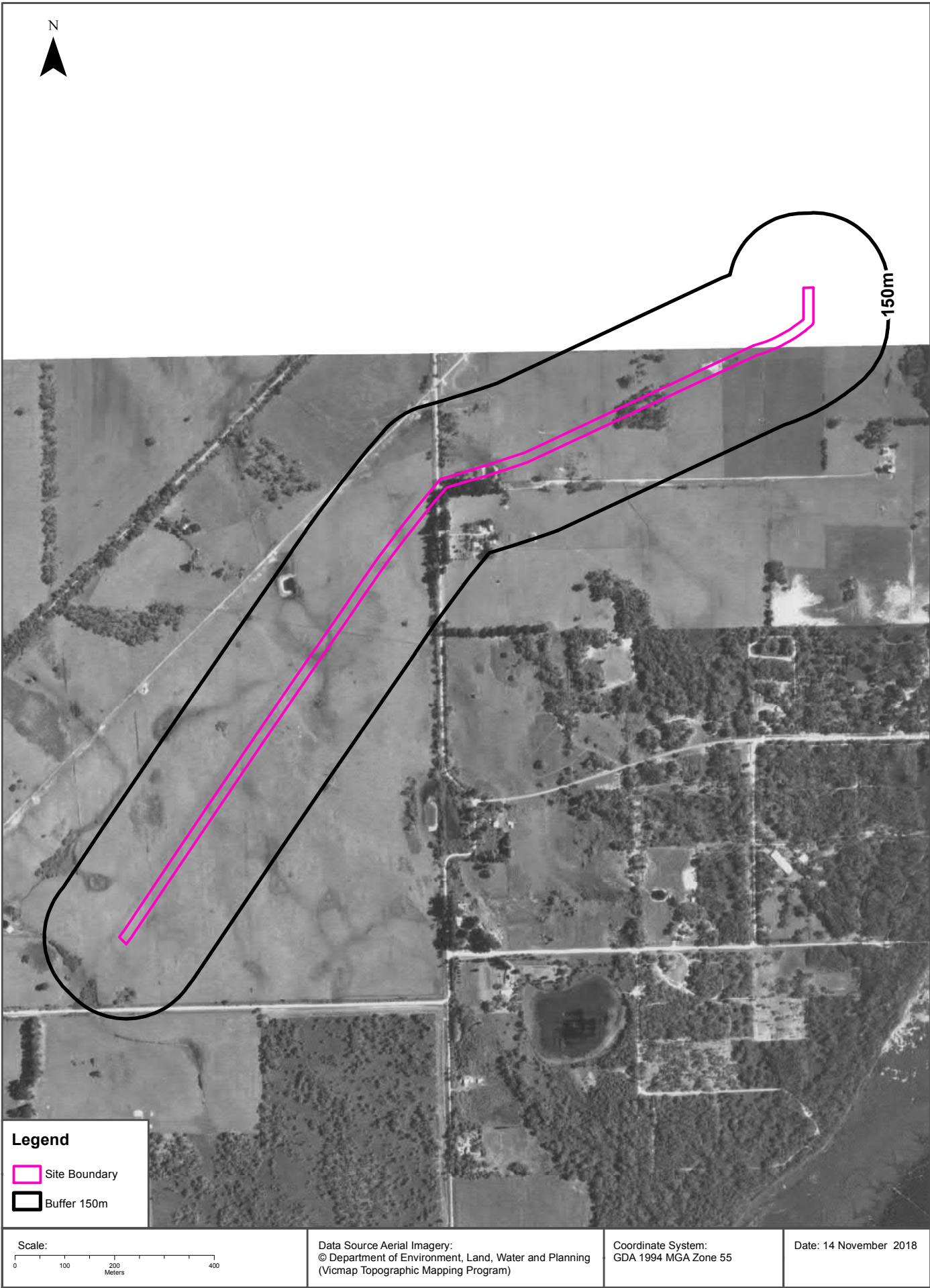
# Aerial Imagery 1975

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



# Aerial Imagery 1975

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



# Aerial Imagery 1970

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





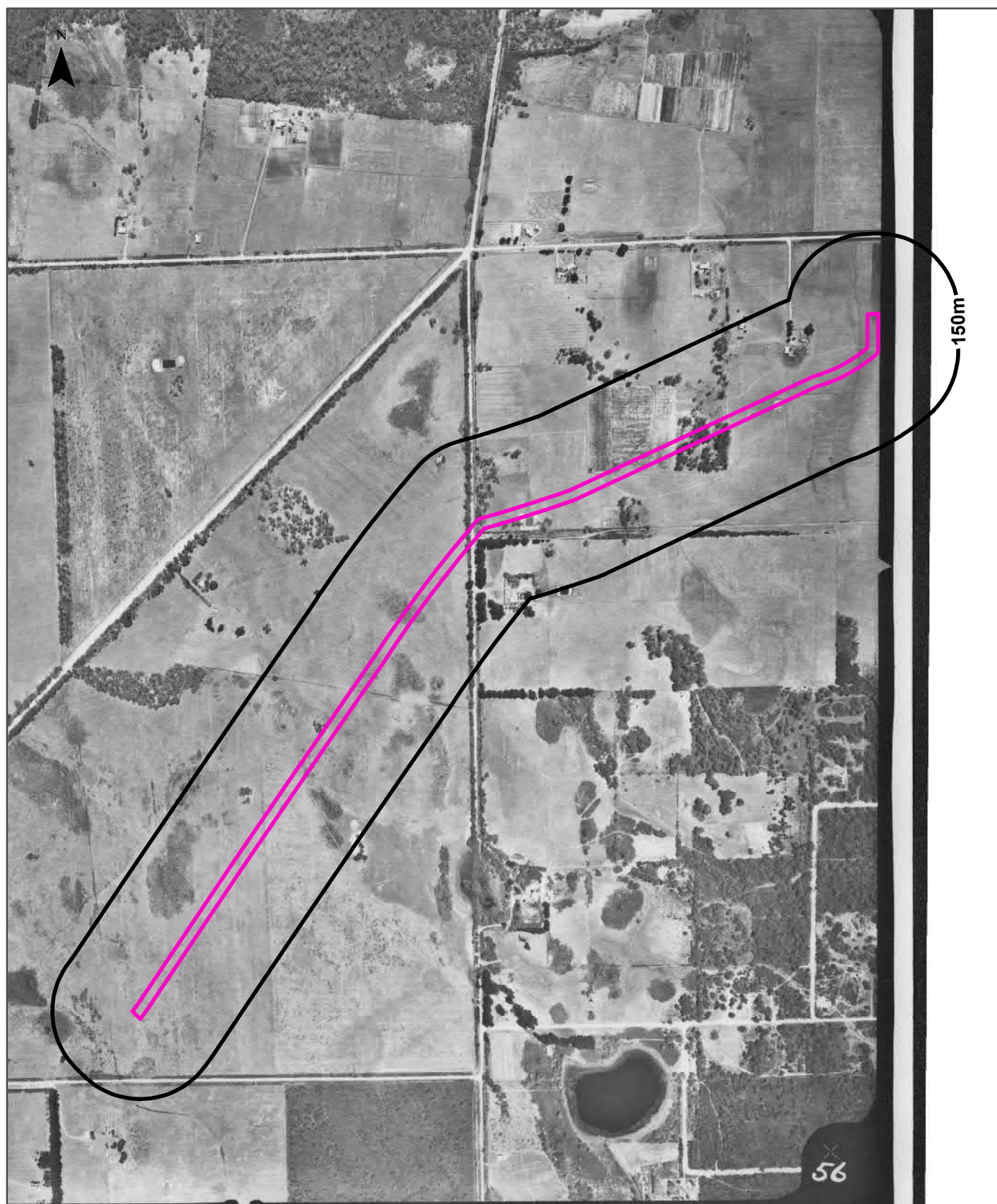
# Aerial Imagery 1970

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



# Aerial Imagery 1963

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



<p>963 PROJECT RUN 43 3.2.64 LENS 205 152.70 M/M 5.150</p> <p>Scale:</p>	<p>Data Source Aerial Imagery:</p> <p>© Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program)</p>	<p>Coordinate System:</p> <p>GDA 1994 MGA Zone 55</p>	<p><b>Legend</b></p> <p> Site Boundary</p> <p> Buffer 150m</p> <p>Date: 15 November 2018</p>
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## Aerial Imagery 1963

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



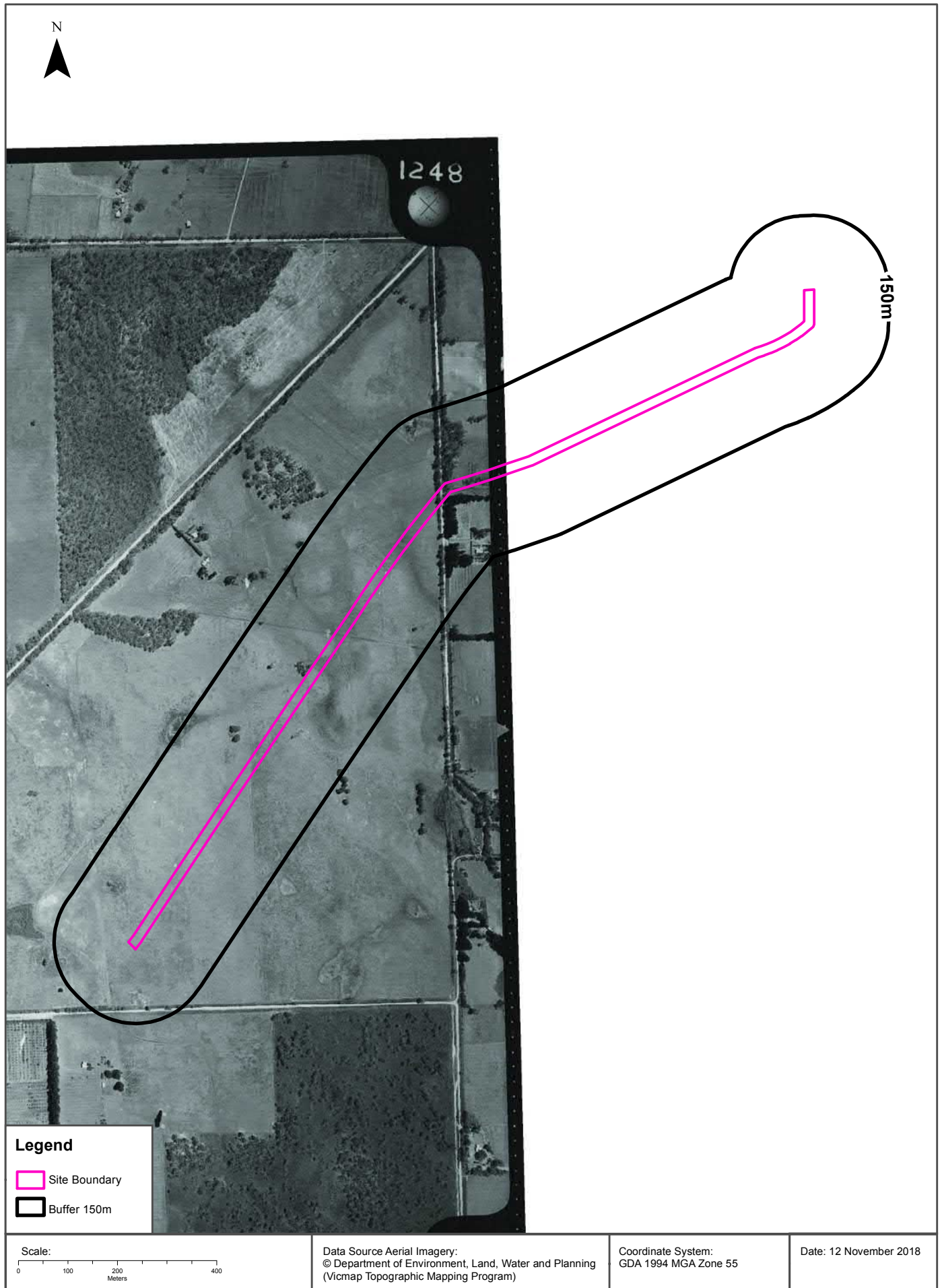
## Aerial Imagery 1957

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Aerial Imagery 1957

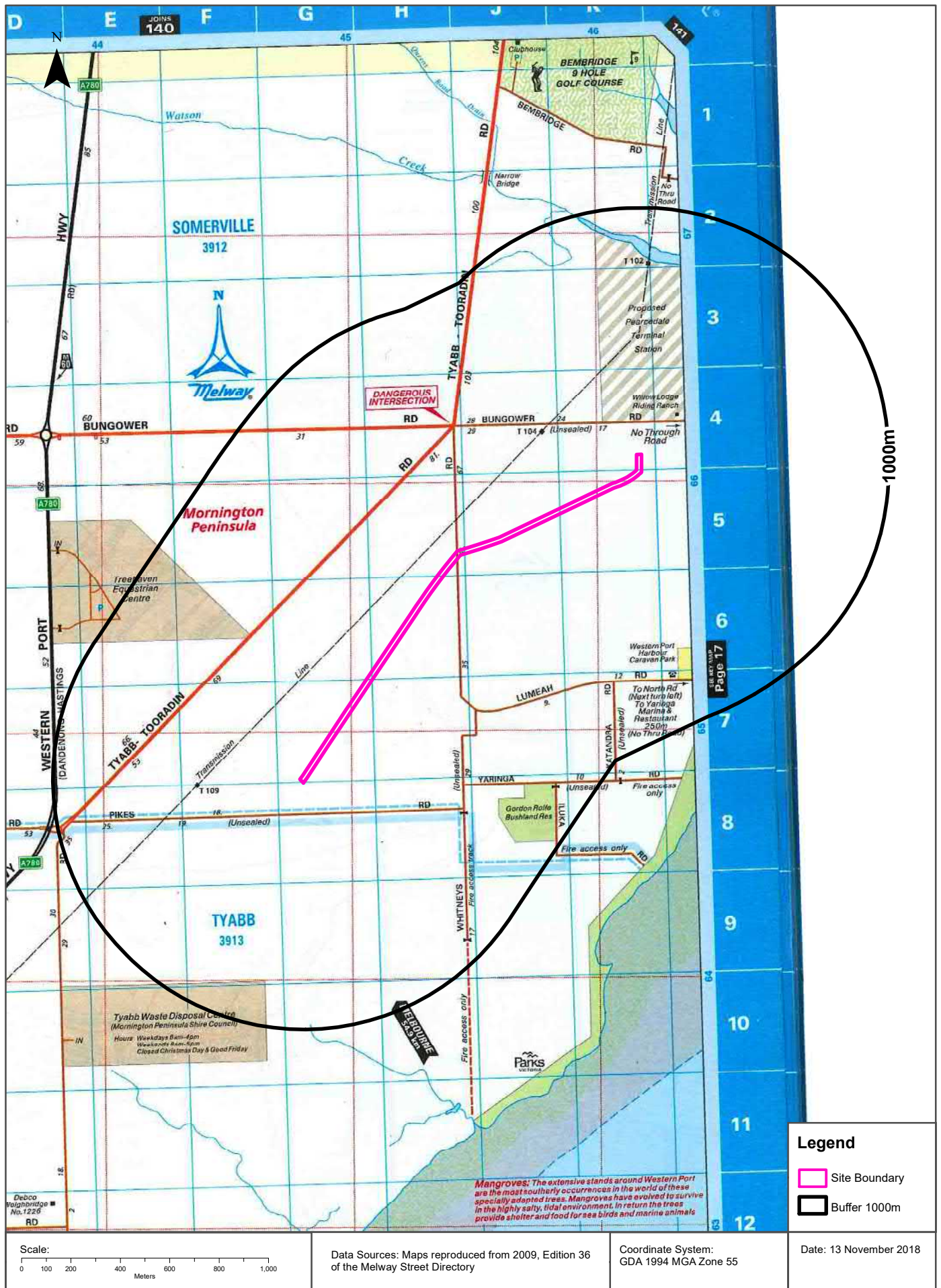
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





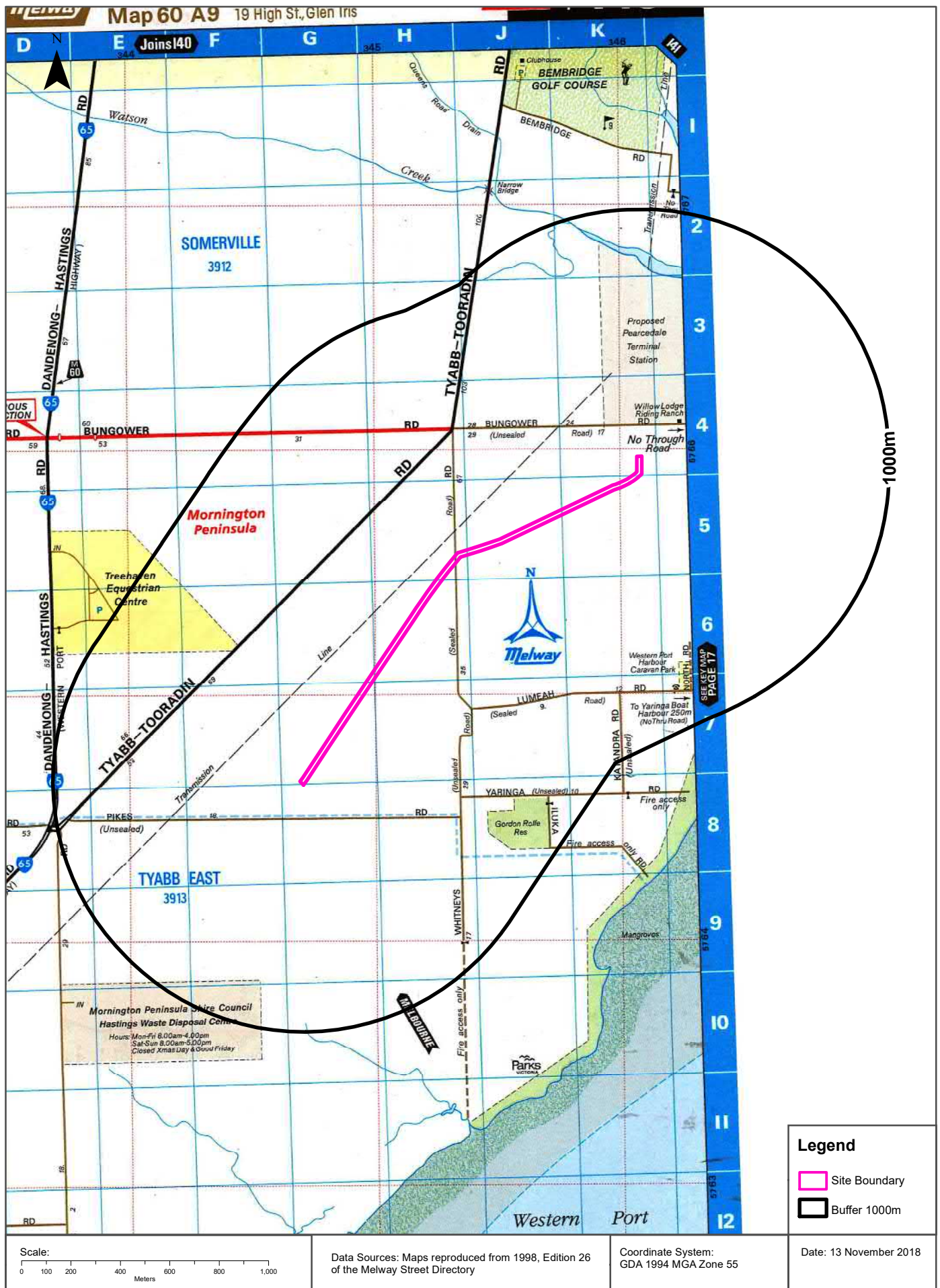
# Historical Map 2009

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





# Historical Map 1986

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





# Historical Map 1979

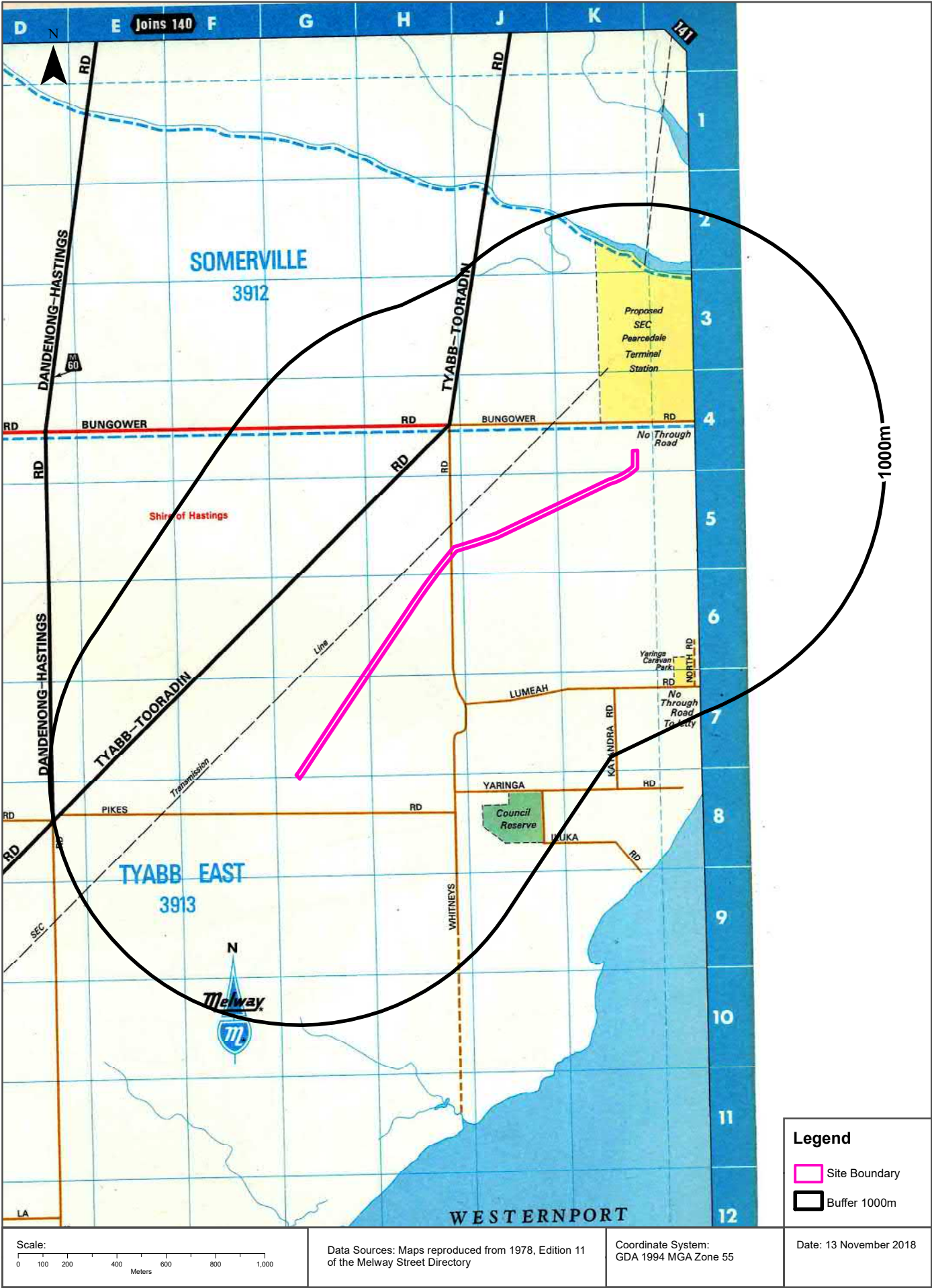
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





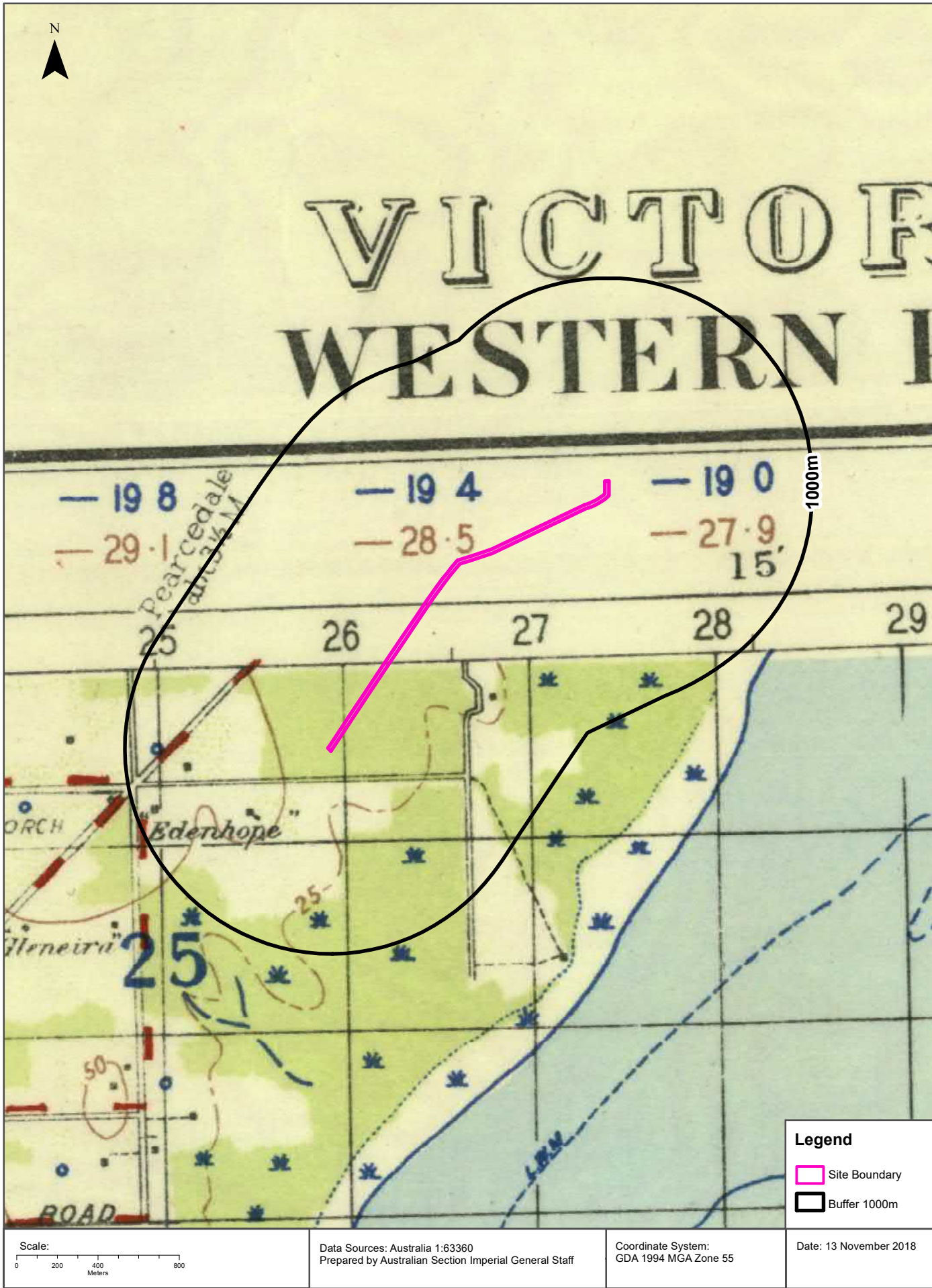
# Historical Map 1978

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



Historical Map 1939

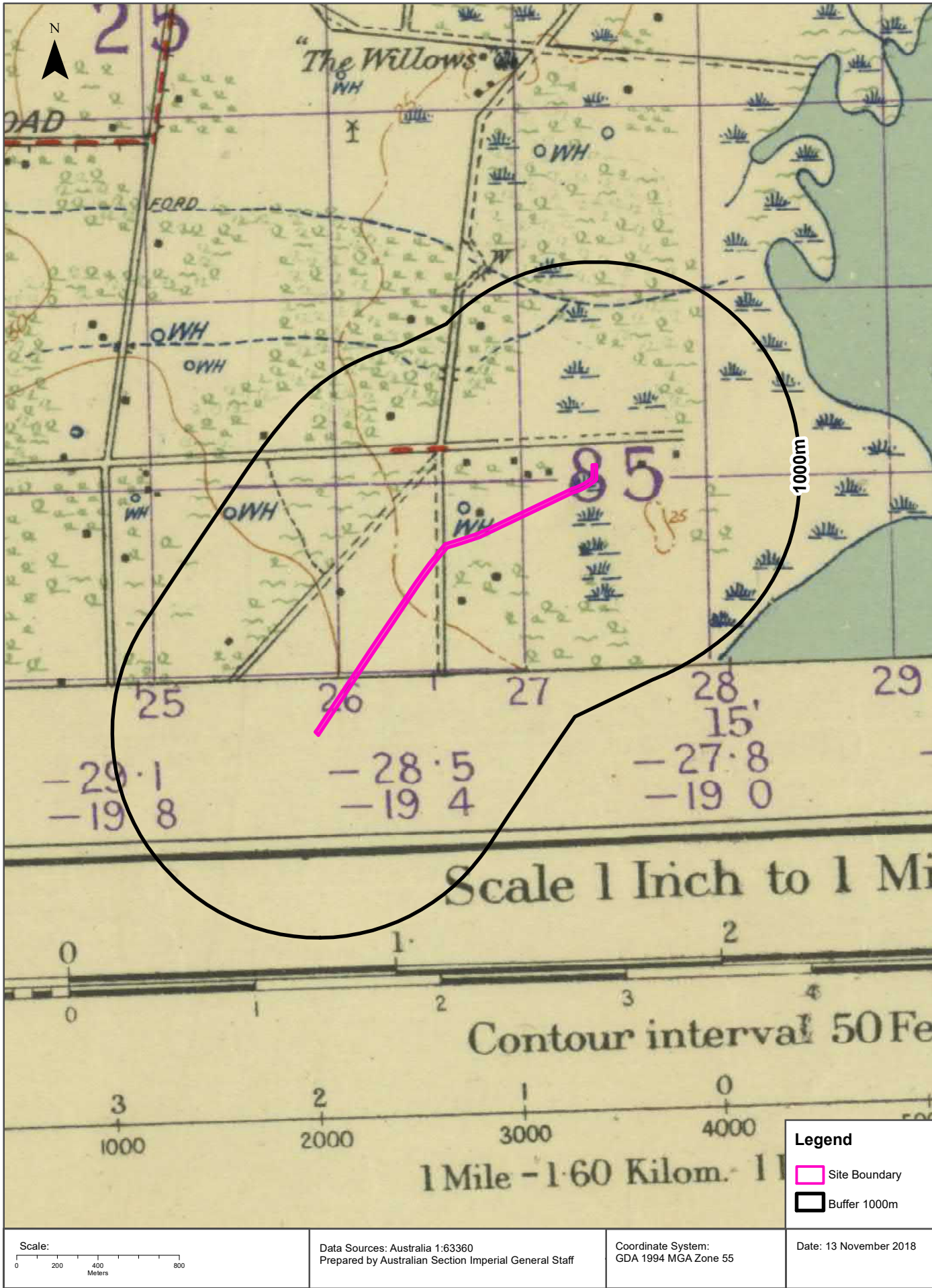
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





Historical Map 1938

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



Historical Map 1930

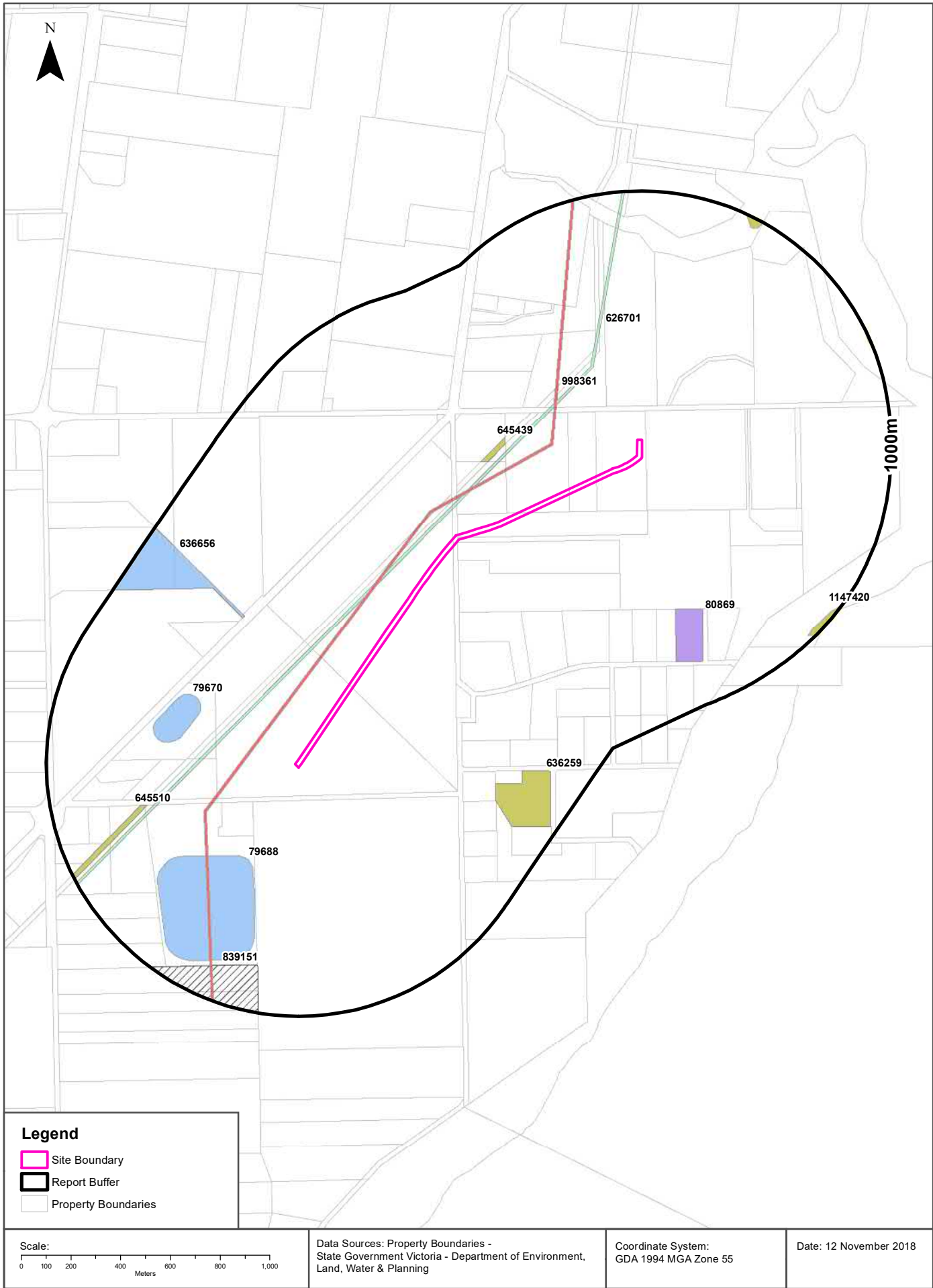
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)





Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Features of Interest

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Features of Interest

Features of Interest within the dataset buffer:

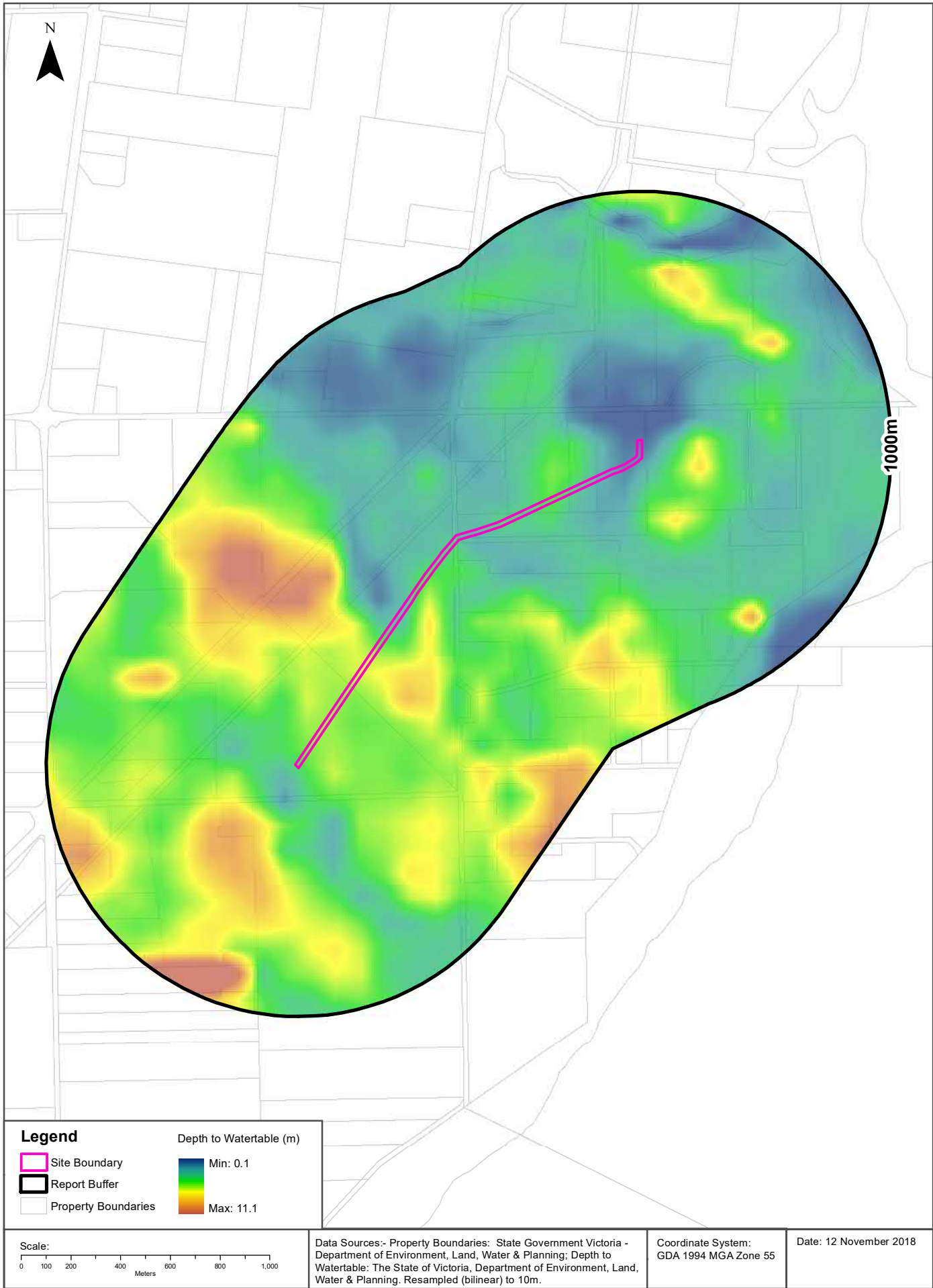
Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
626701	power line	power transmission	Cranbourne-Tyabb	87m	North
998361	pipeline	oil pipeline	Dutson To Hastings	131m	East
645439	reserve	park		239m	North
79688	sport facility	training track		421m	South West
79670	sport facility	training track		436m	South West
636656	sport facility	equestrian facility	Treehaven Equestrian Centre	505m	West
80869	community space	caravan park	Western Port Harbour Caravan Park	595m	East
645510	reserve	park		618m	South West
636259	reserve	park	Gordon Rolfe Reserve	690m	South
839151	dumping ground	landfill	Tyabb Transfer Station	808m	South West
1147420	reserve	national park	Yaringa Marine National Park	958m	North East

Features of Interest Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Depth to Watertable

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



# Hydrogeology & Groundwater

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	Onsite

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

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## Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	100

## Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
Less than 5 metres	100

## Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
4 AHDm to 16 AHDm

## Basement Elevation

Approximate on-site Basement Elevation:

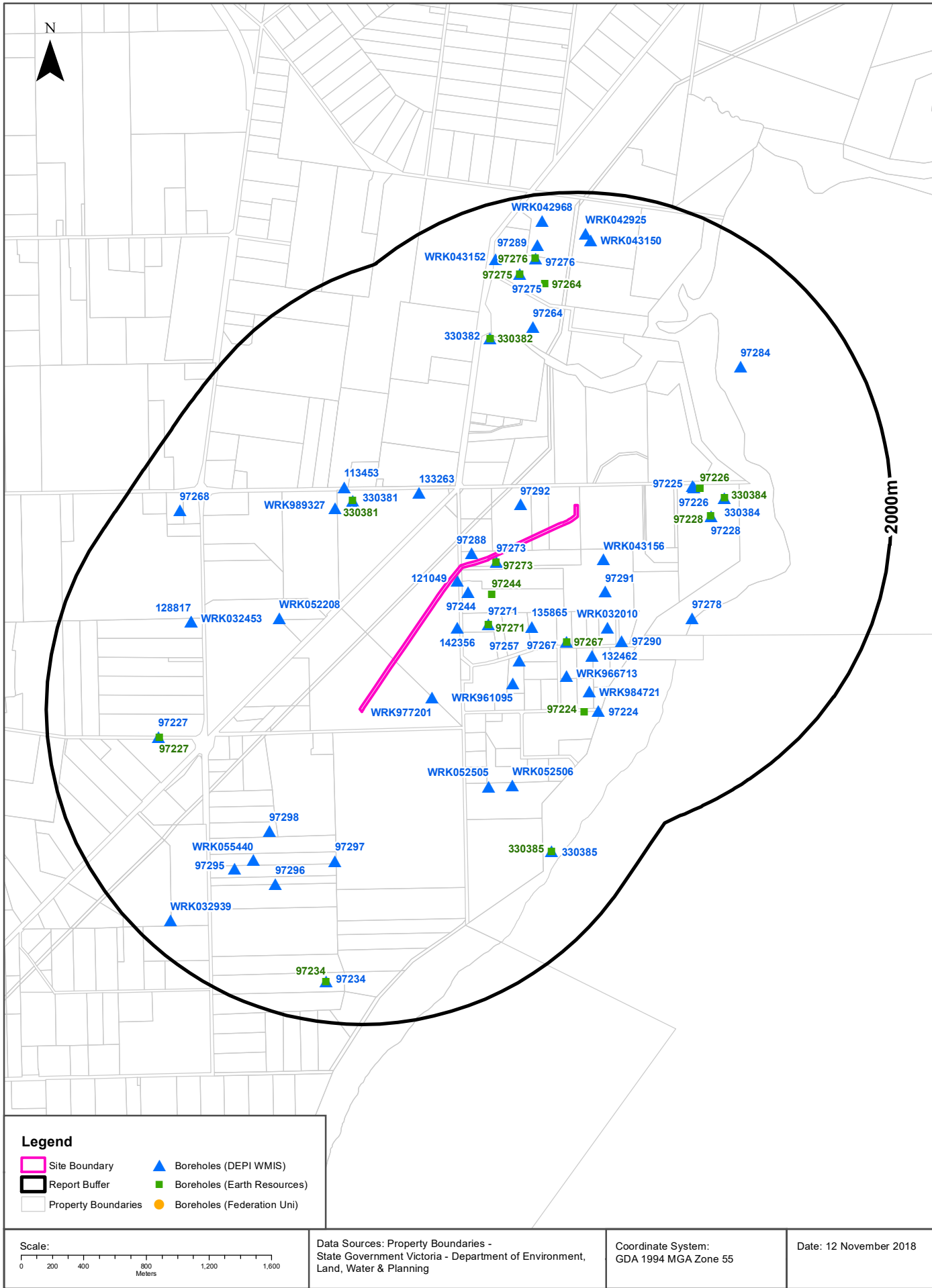
Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
-67 AHDm to -43 AHDm

Groundwater Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Boreholes (DEPI WMIS)

Boreholes from the Department of Environment and Primary Industries' Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
121049	Irrigation	0.00m-0.20m SURFACE SOIL 0.20m-2.00m BROWN CLAY 2.00m-3.40m SANDY GREY & BROWN CLAY 3.40m-6.00m FINE SANDY GREY CLAY 6.00m-8.50m GREY CLAY & COARSE SAND 8.50m-15.80m GREY & BROWN FINE SANDY CLAY 15.80m-18.20m BROWN SILT THIN LAYERS OF SANDSTONE 18.20m-40.00m MARINE & BROWN SILT 40.00m-43.20m DARK MARINE SILT & SHELL 43.20m-43.80m LIMESTONE 43.80m-46.90m LAYERS OF LIMESTONE CORAL & SHELLS 46.90m-47.50m COARSE SAND 47.50m-47.80m BROWN SAND	-0.10m-43.20m INNER LINING - CASING = Steel 43.20m-47.50m INNER LINING - SCREEN = Steel 0.00m-0.00m OUTER LINING - GRAVEL = Seal		43.20m-47.50m Limestone	1993-11-27	24	North
97273	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SAND 0.60m-0.90m COFFEE ROCK 0.90m-6.10m RED & GREY SANDY CLAY 6.10m-11.60m GREEN & BROWN SANDY CLAY 11.60m-40.50m MARINE SILT 40.50m-42.10m GREEN SANDY CLAY 42.10m-46.30m LIMESTONE & COAL 46.30m-46.90m LIMESTONE & COARSE SAND	0.00m-42.10m INNER LINING - CASING = Steel 42.10m-46.90m INNER LINING - SCREEN = Steel		42.10m-46.90m Limestone	1986-01-02	32	North East
97288	Domestic, Stock					1988-01-01	54	North
97244	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.91m GREY SAND 0.91m-3.35m CLAY 3.35m-3.96m SANDY CLAY 3.96m-10.36m SLOPPY CLOGGY SAND 10.36m-12.50m STICKY MARINE SANDY CLAY 12.50m-32.00m BROKEN SANDSTONE PIECES MARINE CLAY SHELL 32.00m-37.20m MARINE CLAY SILT AND LITTLE SHELL 37.20m-38.10m CONSOLIDATED MARINE CLAY SILT AND SHELL 38.10m-39.32m DARK MARINE CLAY SHELL 39.32m-42.10m SOFT LIMESTONE SHELL 42.10m-43.60m HARD SHELLY LIMESTONE 43.60m-43.90m SOFT LAYERS OF BROKEN LIMESTONE AND SHELL	0.00m-39.62m INNER LINING - CASING = Not Known 39.62m-43.89m INNER LINING - SCREEN = Not Known			1970-10-25	125	East
142356	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-1.80m BROWN CLAY 1.80m-3.50m SANDY GREY & BROWN CLAY 3.50m-6.00m FINE SANDY GREY CLAY 6.00m-8.20m GREY CLAY & COARSE SAND 8.20m-17.00m BROWN SILT THIN SANDSTONE LAYERS 17.00m-37.50m MARINE SILT LAYERS 37.50m-38.80m DARK MARINE SILT & SHELL 38.80m-39.00m LIMESTONE 39.00m-42.00m SOFT LIMESTONE 42.00m-42.30m COARSE SNAD 42.30m-42.60m BROWN COAL	0.00m-42.60m OUTER LINING - GRAVEL = Cement			1998-10-23	200	South



Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97292	Domestic, Stock					1988-01-01	214	North East
WRK043156	Domestic, Irrigation, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m TOP FILLING 0.90m-7.00m CLAY 7.00m-13.70m SANDY GREEN CLAY 13.70m-21.30m MARINE CLAY & SHELL 21.30m-38.10m LIGHT MARINE CLAY 38.10m-38.90m DARK MARINE SOFT ROACK & SHELL 38.90m-45.40m LAYERS OF HARD SANDSTONE LIMESTONE & SHELL	0.00m-38.90m INNER LINING - CASING = Steel 38.90m-45.70m INNER LINING - SCREEN = Steel			1977-12-12	316	East
WRK977201							321	South
97271	Domestic, Stock	0.00m-0.50m SURFACE SOIL 0.50m-0.90m SAND 0.90m-14.50m SANDY GREY & BROWN CLAY DARK GREY SANDY CLAY DARK GREEN CLAY 14.50m-40.50m LIGHT MARINE SILT 40.50m-41.10m DARK MARINE SILT & SHELL 41.10m-47.80m SANDSTONE. LIMESTONE & SHELL 47.80m-48.00m COARSE SAND 48.00m-48.50m BROWN CORAL	0.00m-42.90m INNER LINING - CASING = Galvanised Iron 42.90m-48.20m INNER LINING - SCREEN = Galvanised Iron		42.90m-48.20m Sandstone	1983-02-06	353	South East
97291	Stock					1988-01-01	496	East
135865	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-2.50m CLAY 2.50m-8.00m SANDY CLAY 8.00m-10.60m BROWN CLAY 10.60m-13.00m CLAY, COARSE SAND 13.00m-15.80m MARINE CLAY & LAYERS OF IRONSTONE 15.80m-41.00m MARLE 41.00m-43.00m DARK GREEN MARLE AND SHELL 43.00m-43.30m LIMESTINE 43.30m-48.00m CORAL	-4.20m-43.00m INNER LINING - CASING = Pvc 43.00m-48.00m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement 43.00m-0.00m OUTER LINING - GRAVEL = Seal		43.00m-48.00m Limestone	1998-09-02	502	South East
133263	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-1.50m CLAY 1.50m-3.00m WHITE & ORANGE CLAY & SAND 3.00m-8.00m FINE SANDY GREY CLAY 8.00m-10.50m YELLOW FINE SANDY CLAY 10.50m-12.00m DARK GREY CLAY WITH C/SAND 12.00m-14.60m DARK MARINE CLAYEY SILT 14.60m-23.50m MARLE THIN LENSES ROCK 23.50m-36.00m MARLE 36.00m-38.50m DARK GREEN CLAYEY SILT 38.50m-38.80m CAP ROCK 38.80m-39.50m LIMESTONE 39.50m-43.70m CORAL 43.70m-44.00m COARSE SAND 44.00m-45.00m BROWN COAL	0.20m-38.50m INNER LINING - CASING = Pvc 38.50m-45.00m INNER LINING - SCREEN = Pvc 0.00m-0.00m OUTER LINING - GRAVEL = Seal		38.50m-45.00m Sand	1998-03-13	536	North
97257	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-10.40m SANDY CLAY GREY AND BROWN 10.40m-12.50m DARK GREY SANDY CLAY 12.50m-14.90m DARK GREEN CLAY 14.90m-40.50m LIGHT MARINE SILT 40.50m-41.10m DARK MARINE SILT AND SHELL 41.10m-47.80m SANDSTONE LIMESTONE AND SHELL 47.80m-48.00m COARSE SAND 48.00m-48.50m BROWN COAL	0.00m-42.10m INNER LINING - CASING = Pvc 42.10m-48.50m INNER LINING - SCREEN = Pvc		42.10m-48.50m Sand	1980-11-08	645	South East
97267	Domestic		0.00m-42.10m INNER LINING - CASING = Mild Steel 42.10m-49.10m INNER LINING - SCREEN = Mild Steel			1985-02-05	685	South East
WRK961095							695	South East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK032010	Commercial	0.00m-0.60m SURFACE SOIL 0.60m-0.80m COFFEE ROCK 0.80m-1.50m SAND 1.50m-3.00m GREY & BROWN SANDY CLAY 3.00m-5.40m MOTTLEY SANDY CLAY 5.40m-9.70m MEDIUM FINE SAND & CLAY 9.70m-13.10m DARK MARINE CLAYEY SILT WITH THIN SANDSTONE LAYERS 13.10m-35.00m MARINE CLAYEY SILT 35.00m-35.60m SOFT DARK MARINE SANDSTONE & SHELL 35.60m-36.20m LIMESTONE 36.20m-41.40m LIMESTONE & MEDIUM SAND 41.40m-42.00m GREY CLAY	-0.20m-36.80m INNER LINING - CASING = Pvc 36.80m-41.20m INNER LINING - SCREEN = Pvc			1992-12-17	711	East
97225	Observation, State Observation Network		0.00m-62.00m INNER LINING - CASING = Not Known 62.00m-64.00m INNER LINING - SCREEN = Not Known	Date/time: 2016-04-27 1230 Quality: 43 WLMP: 3.71m DBNS: 3.62m RWL: -0.24mAHD		1978-08-14	742	North East
97226	Observation, State Observation Network		0.00m-16.00m INNER LINING - CASING = Not Known 16.00m-22.00m INNER LINING - SCREEN = Not Known	Date/time: 2018-08-01 1005 Quality: 43 WLMP: 3.31m DBNS: 3.17m RWL: 0.26mAHD	16.00m-22.00m Gravel	1978-09-25	747	North East
WRK052208	Irrigation	0.00m-0.40m SOIL 0.40m-16.00m CLAY 16.00m-18.90m SILT 18.90m-29.00m MARL 29.00m-30.50m LIMESTONE 30.50m-43.00m SHALE 43.00m-115.00m MUDSTONE	0.00m-73.50m INNER LINING - CASING = Pvc 4.00m-45.30m OUTER LINING - GRAVEL = Cement 72.00m-72.50m OUTER LINING - GRAVEL = Packer		73.50m-115.00m Mudstone	2014-04-17	749	West
330381	Non Groundwater					1919-12-31	795	North West
97290	Domestic					1988-01-01	825	East
132462	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-2.40m CLAY 2.40m-7.30m SANDY CLAY 7.30m-9.00m BROWN CLAY 9.00m-11.00m BROWN CLAY & COURSE SAND 11.00m-11.50m MARINE CLAY & COURSE SAND 11.50m-15.20m MARINE CLAY & LAYERS OF IRONSTONE 15.20m-15.50m IRONSTONE 15.50m-40.00m MARLE 40.00m-42.30m DARK GREEN MARLE & SHELLS 42.30m-42.60m LIMESTONE 42.60m-46.00m CORAL 46.00m-47.00m MEDIUM SAND	-0.20m-42.50m INNER LINING - CASING = Pvc 42.50m-47.00m INNER LINING - SCREEN = Pvc 42.20m-0.00m OUTER LINING - GRAVEL = Seal		42.50m-47.00m Limestone	1997-03-26	834	South East
97228	Not Known		0.00m-56.00m INNER LINING - CASING = Not Known 56.00m-58.00m INNER LINING - SCREEN = Not Known			1978-10-31	849	East
WRK989327							854	North West
WRK966713							883	South East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
113453	Stock	0.00m-0.30m SURFACE SOIL 0.30m-1.80m BROWN CLAY 1.80m-3.60m SANDY GREY & BROWN CLAY 3.60m-4.80m FINE SANDY GREY CLAY 4.80m-5.50m FINE SANDY GREY CLAY & IRONSTONE 5.50m-7.00m GREY CLAY & COARSE SAND 7.00m-14.30m GREY & BROWN FINE SANDY CLAY 14.30m-16.70m BROWN SILT & SANDSTONE 16.70m-21.30m MARINE & BROWN SILT WITH THIN LAYERS SANDSTONE 21.30m-31.00m MARINE SILT 31.00m-31.60m LIMESTONE 31.60m-34.70m LIMESTONE & CORAL 34.70m-35.00m SAND COARSE 35.00m-35.60m BROWN COAL	-0.30m-31.00m INNER LINING - CASING = Pvc 31.00m-35.60m INNER LINING - SCREEN = Pvc 30.00m-31.00m OUTER LINING - GRAVEL = Cement		31.00m-35.60m Limestone	1993-03-18	891	North West
330384	Non Groundwater					1919-12-31	936	East
WRK052505	Irrigation	0.00m-0.30m TOP SOIL 0.30m-44.00m CLAY 44.00m-48.00m STONE	0.00m-44.00m INNER LINING - CASING = Pvc 1.00m-44.00m OUTER LINING - GRAVEL = Cement 44.00m-48.00m OUTER LINING - GRAVEL = Packer			2008-07-04	937	South
97298	Groundwater Investigation	0.00m-0.50m GREY CLAYEY SAND 0.50m-1.50m BROWN & GREY MOTTLED CLAY 1.50m-7.20m YELLOW-WHITE CLAYISH SANDS 7.20m-11.60m BLACK TO DARK GREY CLAYISH SANDS	0.00m-1.55m INNER LINING - CASING = Pvc 1.55m-9.55m INNER LINING - SCREEN = Pvc 1.55m-9.55m OUTER LINING - GRAVEL = Gravel		1.55m-9.55m Sand	1988-01-01	965	South West
97297	Groundwater Investigation	0.00m-1.00m GREYISH CLAYEY SAND 1.00m-1.50m YELLOW GREY MOTTLED CLAY 1.50m-2.00m STICKY CLAYISH FINE-MEDIUM SAND 2.00m-9.90m MOTTLED GREY-RED SANDY CLAYS 9.90m-11.60m COARSE GREY SANDY CLAYS	0.00m-2.48m INNER LINING - CASING = Pvc 2.48m-11.48m INNER LINING - SCREEN = Pvc 11.48m-11.60m INNER LINING - CASING = Pvc 1.10m-11.60m OUTER LINING - GRAVEL = Gravel		2.48m-11.48m Clay	1988-01-01	968	South West
97278	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-1.80m GREY SAND 1.80m-8.80m GREY & BROWN CLAY 8.80m-9.10m GREY CLAY 9.10m-10.70m BROWN SILT 10.70m-12.50m BROWN SILT & IRONSTONE 12.50m-32.00m MARINE SILT 32.00m-39.00m MARINE SILT & SHELL 39.00m-40.00m LIMESTONE 40.00m-46.80m CORAL 46.80m-47.00m CORAL & COARSE SAND 47.00m-47.30m BROWN COAL	0.00m-40.00m INNER LINING - CASING = Pvc 40.00m-47.00m INNER LINING - SCREEN = Pvc 39.00m-0.00m OUTER LINING - GRAVEL = Seal		40.00m-47.00m Limestone	1987-10-15	976	East
WRK984721	Domestic & Stock	0.50m-1.20m GREY SAND 1.20m-5.00m GREY & ORANGE CLAY 5.00m-8.00m GREY CLAY 8.00m-14.50m SILTY CLAY 14.50m-18.00m LIMESTONE 18.00m-19.00m LIMESTONE/SANDY CLAY 19.00m-42.00m SILT & CLAY 42.00m-43.00m CLAY & SHELLS 43.00m-44.50m SAND LIMESTONE & SHELLS	1.00m-7.00m OUTER LINING - GRAVEL = Cement		41.50m-44.50m Limestone	2008-07-16	1035	South East
WRK052506	Irrigation	0.00m-0.30m TOP SOIL 0.30m-44.30m CLAY 44.30m-49.00m STONE	0.00m-44.50m INNER LINING - CASING = Pvc 0.00m-44.50m OUTER LINING - GRAVEL = Cement 44.50m-49.00m OUTER LINING - GRAVEL = Seal			2008-07-07	1058	South
97264	Domestic, Stock	0.00m-1.40m SANDY LOAM 1.40m-1.70m COFFEE ROCK 1.70m-7.00m HARD YELLOW CLAY 7.00m-9.20m LIGHT GREY CLAY 9.20m-16.00m WEATHERED CLAY 16.00m-19.15m SHELL AND WEATHERED ROCK	0.00m-16.00m INNER LINING - CASING = Galvanised Iron 16.00m-19.15m INNER LINING - SCREEN = Galvanised Iron		16.00m-19.15m Marl	1984-01-17	1169	North

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97224	Observation, State Observation Network			Date/time: 2009-05-06 1537 Quality: 43 WLMP: 5.54m DBNS: 4.54m RWL: -1.25mAHD		1978-07-25	1171	South East
WRK055440	Observation	0.00m-0.50m topsoil 0.50m-1.20m clay 1.20m-2.00m clay 2.00m-4.00m sandy clay 4.00m-8.60m brown sandy clay	0.00m-5.60m INNER LINING - CASING = Pvc 5.60m-8.60m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-1.60m OUTER LINING - GRAVEL = Cement 1.60m-4.60m OUTER LINING - GRAVEL = Bentonite 4.60m-8.60m OUTER LINING - GRAVEL = Gravel		0.00m-5.60m Clay 5.60m-8.60m Clay	2010-06-17	1173	South West
330382	Non Groundwater					1919-12-31	1195	North
WRK032453	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-7.60m SANDY CLAY 7.60m-10.60m FINE SAND 10.60m-11.20m BROWN COAL 11.20m-13.70m CLAY 13.70m-36.50m MARL 36.50m-38.10m LIMESTONE 38.10m-38.40m SAND 38.40m-38.70m BROWN COAL 38.70m-41.10m BROWN CLAY 41.10m-42.60m GREY CLAY 42.60m-44.10m DECOMPOSED BASALT 44.10m-57.80m GREEN SANDSTONE 57.80m-60.00m GREY SANDSTONE				1996-08-22	1214	West
128817	Not Used - Capped	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SANDY CLAY 0.60m-7.60m IRONSTONE 7.60m-8.50m CLAYEY SAND 8.50m-12.80m WHITE MEDIUM FINE SAND 12.80m-13.70m BROWN COAL 13.70m-14.30m CLAY 14.30m-15.20m MARINE SILT 15.20m-38.00m MARINE SILT AND SHELL 38.00m-38.40m LIMESTONE 38.40m-39.60m SOFT LIMESTONE 39.60m-40.80m BROWN COAL 40.80m-41.50m BROWN CLAY 41.50m-45.00m GREY CLAY 45.00m-74.70m BASALTIC CLAY 74.70m-76.20m DECOMPOSED BASALT 76.20m-158.50m MUDSTONE / SANDSTONE				1996-08-15	1214	West
97296	Groundwater Investigation	0.00m-1.00m BROWN SANDY TOP SOIL 1.00m-1.80m BROWN-WHITE MOTTLED CLAY 1.80m-2.90m MEDIUM-FINE GREY SANDY CLAY 2.90m-6.00m FINE-MEDIUM GREY SANDY CLAY 6.00m-7.50m LIGHT BROWN SILT 7.50m-9.00m DARK BROWN CLAYISH SAND 9.00m-12.00m SANDY CLAY & WEATHERED BASALT	-0.30m-2.42m INNER LINING - CASING = Pvc 2.42m-11.60m INNER LINING - SCREEN = Pvc 1.60m-11.60m OUTER LINING - GRAVEL = Gravel		2.42m-11.60m Clay	1988-01-01	1233	South West
97295	Groundwater Investigation	0.00m-1.10m BROWN CLAY 1.10m-6.78m GREY SANDY CLAYS 6.78m-7.00m BROWN GRAVELY CLAY 7.00m-8.00m GREY-GREEN MOTTLED CLAY 8.00m-10.15m YELLOW SANDY CLAY	0.30m-3.66m INNER LINING - CASING = Pvc 3.66m-9.66m INNER LINING - SCREEN = Pvc 3.66m-9.66m OUTER LINING - GRAVEL = Gravel		3.66m-9.66m Clay	1988-01-01	1289	South West
97227	Observation, State Observation Network		0.00m-36.00m INNER LINING - CASING = Not Known 36.00m-42.00m INNER LINING - SCREEN = Not Known	Date/time: 2018-08-01 1026 Quality: 43 WLMP: 7.62m DBNS: 6.71m RWL: 15.98mAHD	36.00m-42.00m Clay	1978-11-20	1296	South West



Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97284	Domestic	0.00m-0.60m SURFACE SOIL 0.60m-2.00m BROWN SAND 2.00m-4.50m GREY AND BROWN SANDY CLAY 4.50m-11.60m BROWN CLAY AND IRONSTONE 11.60m-19.80m MARINE SILT AND CLAY 19.80m-41.50m MARINE SILT 41.50m-43.20m MARINE SILT AND SHELL 43.20m-44.80m LIMESTONE 44.80m-47.50m CORAL 47.50m-49.00m CORAL AND SAND 49.00m-49.30m BROWN COAL 49.30m-50.20m GREY MUDSTONE	43.00m-43.00m INNER LINING - CASING = Pvc 43.00m-49.00m INNER LINING - SCREEN = Not Known		43.00m-49.00m Limestone	1988-10-13	1365	North East
330385	Non Groundwater					1919-12-31	1506	South
97275	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-1.80m GREY SAND 1.80m-8.80m GREY & BROWN CLAY 8.80m-9.10m GREY CLAY 9.10m-10.70m SLOPPY SANDY GREY CLAY 10.70m-11.60m GREY CLAY 11.60m-12.50m MARINE SILT 12.50m-14.90m BROKEN MARINE ROCK 14.90m-15.20m STICKY MARINE CLAY	0.00m-12.50m INNER LINING - CASING = Galvanised Iron 12.50m-14.90m INNER LINING - SCREEN = Galvanised Iron		12.50m-14.90m Marl	1987-11-06	1518	North
97276	Domestic	0.00m-0.60m SURFACE SOIL 0.60m-3.00m BROWN SAND 3.00m-7.90m GREY & BROWN SANDY CLAY 7.90m-8.50m GREY CLAY 8.50m-9.10m BROWN CLAY & IRONSTONE 9.10m-23.70m MARINE SILT CLAY & SHELL 23.70m-57.30m MARINE SILT & SHELL 57.30m-63.40m CORAL 63.40m-64.00m CORAL & SAND	0.00m-57.30m INNER LINING - CASING = Not Known 57.30m-64.00m INNER LINING - SCREEN = Not Known		57.30m-64.00m Limestone	1988-01-10	1597	North
WRK043152	Irrigation					1970-12-31	1651	North
97268	Domestic, Stock		0.00m-37.20m INNER LINING - CASING = Galvanised Iron 37.20m-38.40m INNER LINING - SCREEN = Galvanised Iron			1984-11-23	1662	West
97289	Stock					1988-01-01	1681	North
WRK043150	Domestic, Irrigation, Stock					1970-12-31	1694	North
WRK042925	Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m RED CLAY 0.60m-0.90m SUBSOIL & IRONSTONE 0.90m-1.20m RED CLAY 1.20m-3.60m SANDY RED & GREY CLAY 3.60m-10.60m CLAYEY MEDIUM SAND 10.60m-14.30m BLACK CLAYEY SILT 14.30m-17.40m BLACK CLAYEY SILT AND MEDIUM SAND 17.40m-17.60m SANDSTONE 17.60m-18.20m MARINE SILT & SANDSTONE 18.20m-21.90m MARINE CLAYEY SILT & SAND 21.90m-29.30m MARINE SILT & SHELL 29.30m-48.70m MARINE SILT, SHELL & THIN LAYERS SANDSTONE 48.70m-54.20m LIMESTONE & CORAL 54.20m-54.80m BASALT	-0.01m-48.70m INNER LINING - CASING = Steel 0.00m-11.00m INNER LINING - CASING = Pvc 48.70m-54.80m INNER LINING - SCREEN = Pvc 9.00m-11.00m OUTER LINING - GRAVEL = Cement			1991-11-23	1737	North
97234	Not Known					1967-12-31	1740	South
WRK032939	Commercial, Not Known	0.00m-0.30m TOP SOIL 0.30m-17.00m CLAY & SILTS 17.00m-19.00m SAND 19.00m-31.00m DARK BROWN & GREY CLAYS 31.00m-53.00m MARL 53.00m-54.50m MARINE CLAYS 54.50m-55.00m CAP ROCK 55.00m-57.80m LIMESTONE	0.00m-55.00m INNER LINING - CASING = Pvc 55.00m-58.00m INNER LINING - SCREEN = Pvc 0.00m-0.00m OUTER LINING - GRAVEL = Packer			1998-08-24	1807	South West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK042968	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-1.20m SAND 1.20m-8.00m SANDY CLAY 8.00m-12.00m DARK SILTY CLAY 12.00m-27.00m MARL 27.00m-29.70m SOFT MARINE SEDIMENT 29.70m-51.30m MARL 51.30m-52.00m LIMESTONE 52.00m-53.00m LIMESTONE & CORAL 53.00m-58.00m SND 58.00m-58.50m COAL AND SILT	0.30m-51.50m INNER LINING - CASING = Galvanised Iron 51.50m-58.00m INNER LINING - SCREEN = Galvanised Iron 51.00m-0.00m OUTER LINING - GRAVEL = Seal			1997-10-01	1830	North

Boreholes WMIS Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Direct
97273		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		02/01/1985	46.90		100	31	North East
97244		Private Individual/Corporation	Domestic water supply	Percussion (cable)		25/10/1970	43.89		300	215	East
97271		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		06/02/1983	48.20		100	352	South East
97267		Private Individual/Corporation	Domestic water supply	Percussion (cable)		05/02/1985	49.00		100	683	South East
97225		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		14/08/1978	64.30	3.38	300	786	North East
97226		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		25/09/1978	58.00	3.43	300	786	North East
330381		Department of Manufacturing & Industry Development				31/12/1919	35.66		300	797	North West
97228		Department of Manufacturing & Industry Development		Percussion (cable)	Abandoned	31/10/1978	74.00		300	847	East
330384		Department of Manufacturing & Industry Development				31/12/1919	80.16		300	934	East
97224		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		25/07/1978	64.00	3.32	300	1135	South East
330382		Department of Manufacturing & Industry Development				31/12/1919	94.18		300	1196	North
97227		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		20/11/1978	48.00	22.70	300	1290	South West
97264		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		17/01/1984	19.15		100	1430	North
330385		Department of Manufacturing & Industry Development				31/12/1919	56.39		300	1504	South
97275		Private Individual/Corporation	Domestic water supply	Percussion (cable)		06/11/1987	15.20		100	1519	North
97276		Private Individual/Corporation	Domestic water supply	Percussion (cable)		10/01/1988	64.00		100	1598	North
97234		Private Individual/Corporation				31/12/1967	45.72		300	1740	South

Boreholes Earth Resources Data Source: © The State of Victoria, Department of Economic Development, Jobs, Transport and Resources 2015. Creative Commons Attribution 3.0 Australia

## Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Direct
N/A	No records within buffer						

Boreholes FedUni Data Source: © Federation University Australia



## Historical Mining Activity - Shafts

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Historical Mining Activity - Shafts

Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

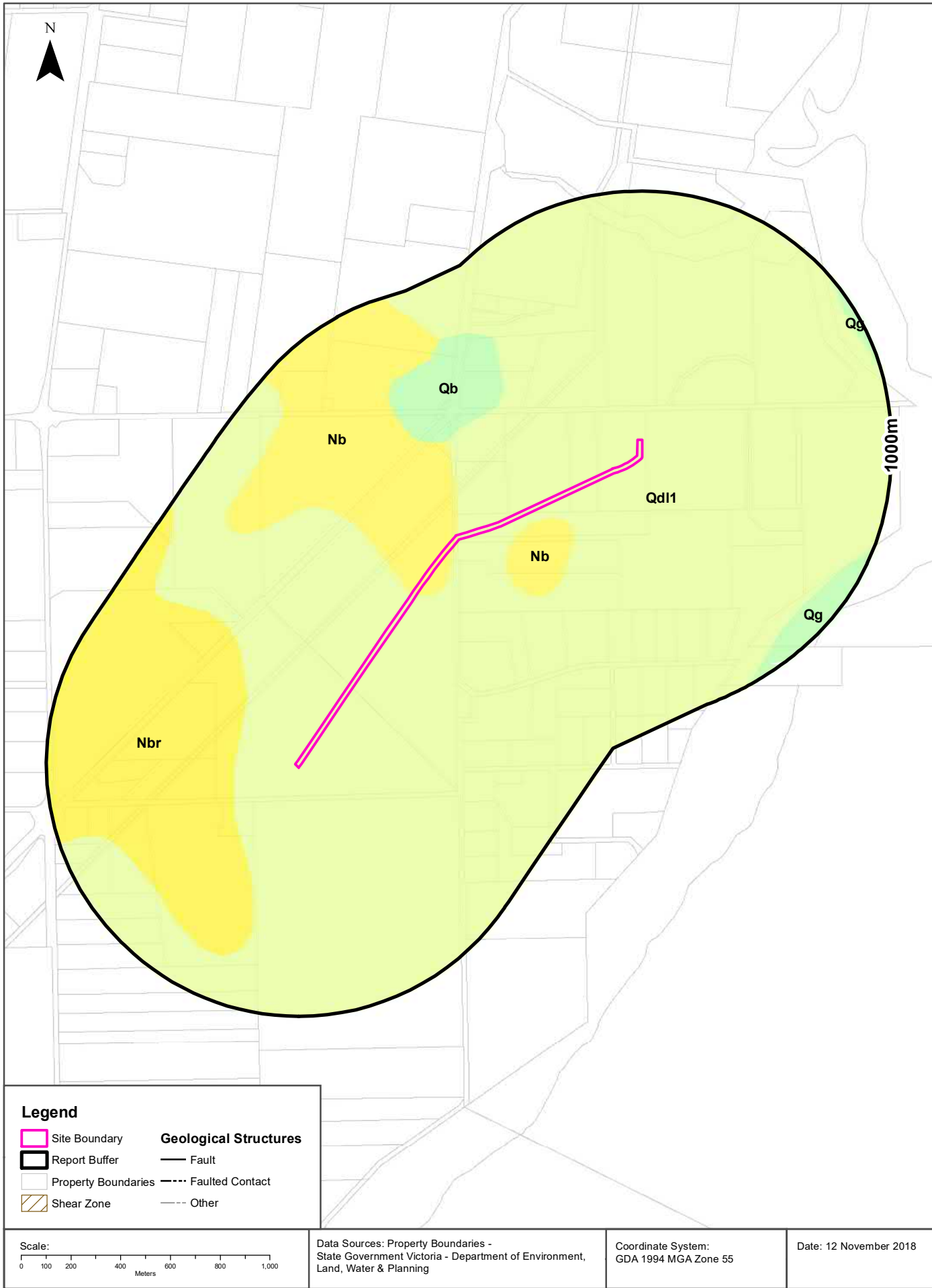
Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Historical Mining Activity Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources

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Geology 1:250,000

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Geological Units

What are the Geological Units onsite?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nb	Brighton Group( Nb): generic	Gravel, sand, silt: variably calcareous to ferruginous sandstones and coquinas; marine to nonmarine	Miocene to Pliocene	silt material (significant); sand (significant); gravel material (significant)	1:250,000
Qdl1	coastal dune deposits (Qdl1): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nb	Brighton Group( Nb): generic	Gravel, sand, silt: variably calcareous to ferruginous sandstones and coquinas; marine to nonmarine	Miocene to Pliocene	silt material (significant); sand (significant); gravel material (significant)	1:250,000
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qb	alluvium and colluvium( Qb): generic	Sand, silt, clay, gravel, diamictite; alluvial and colluvial deposits	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant); gravel material (significant)	1:250,000
Qdl1	coastal dune deposits (Qdl1): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qg	coastal lagoon deposits (Qg): generic	Silt, clay: dark grey to black; variably consolidated	Holocene to Holocene	silt material (significant); clay lithology (significant)	1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Geological Structures

What are the Geological Faults or Faulted Contacts onsite?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

What are the Dykes, Marker Beds and Veins onsite?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones onsite (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

What are the Dykes, Marker Beds and Veins within the dataset buffer?

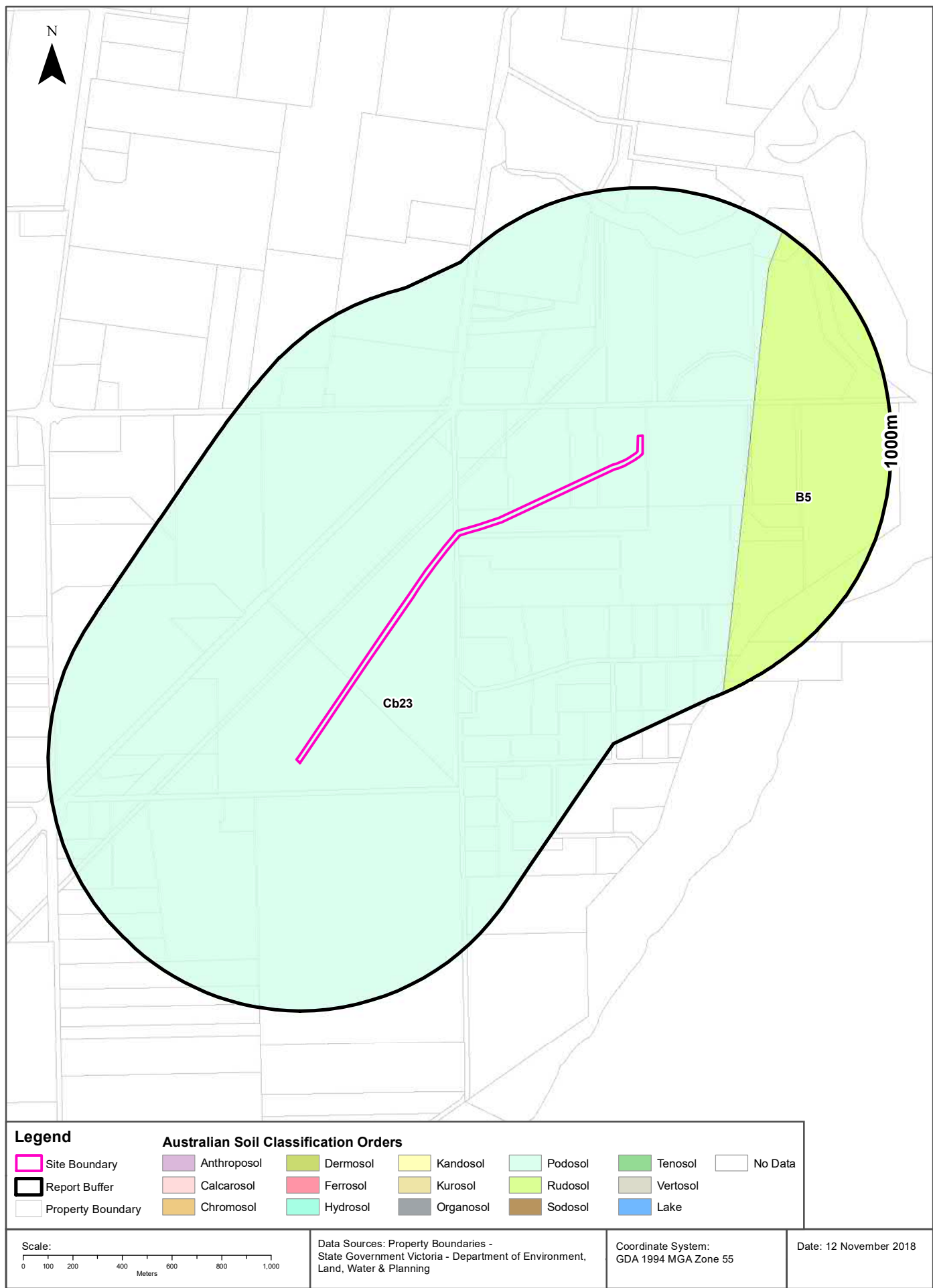
Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones within the dataset buffer (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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## Soil Landscapes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Atlas of Australian Soils

Australian soil types within the dataset buffer:

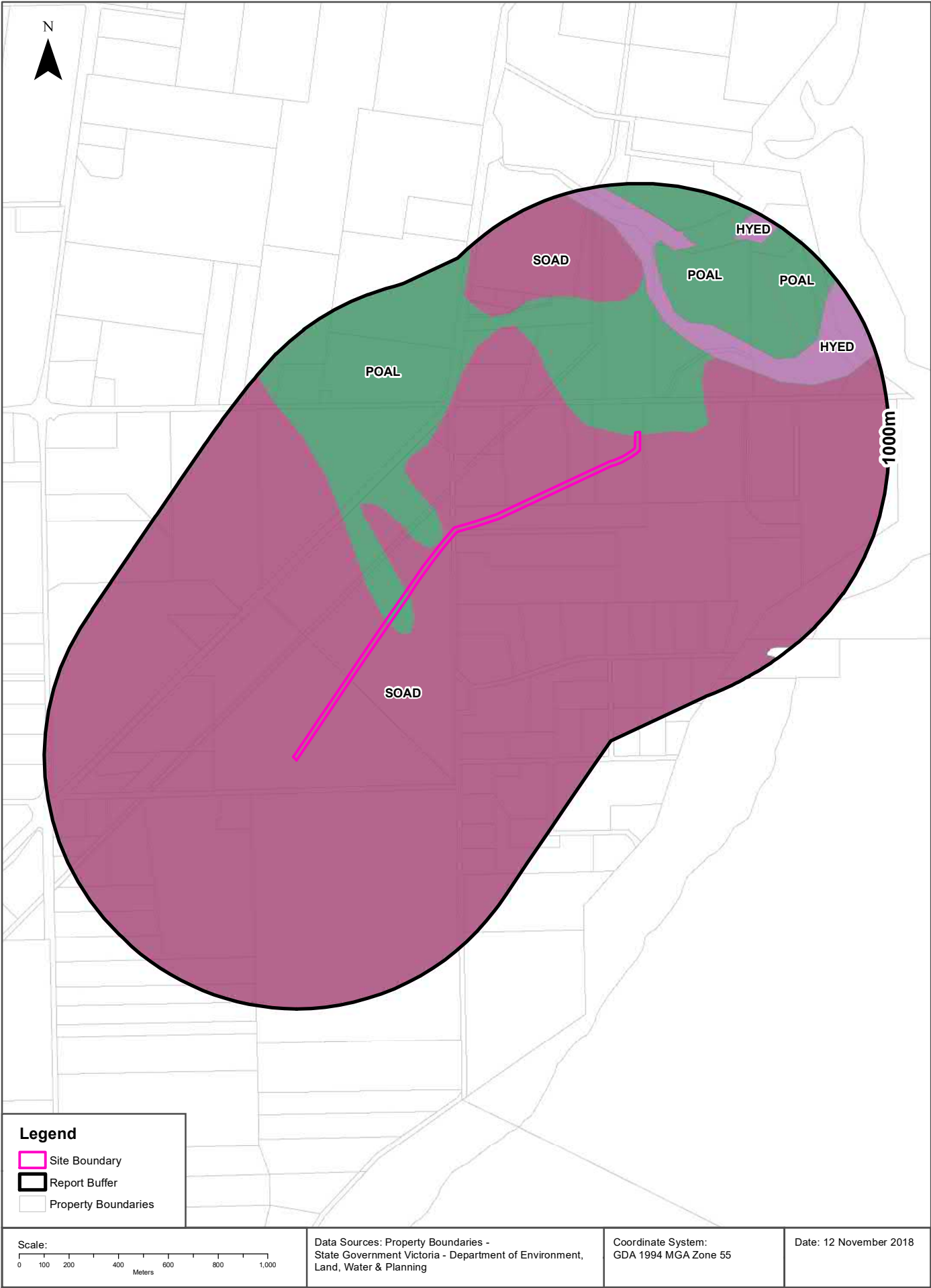
Symbol	Soil Order	Map Unit Description	Distance
Cb23	Podosol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests. and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m
B5	Rudosol	Coastal plains with dunes, swamps, and lakes: plains and dunes of siliceous sands (Uc1.2) and silty soils (Um1) and plains of clay soils (Uf) and (Ug); some terrace remnants where the plains merge with the stream valleys of dark, deep, porous loamy soils (Um6.12) on the lower terraces, and hard alkaline soils (Dr2.23) on the higher terraces.	423m

Atlas of Australian Soils: CSIRO

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Victorian Soil Type Mapping

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Soil Landscapes

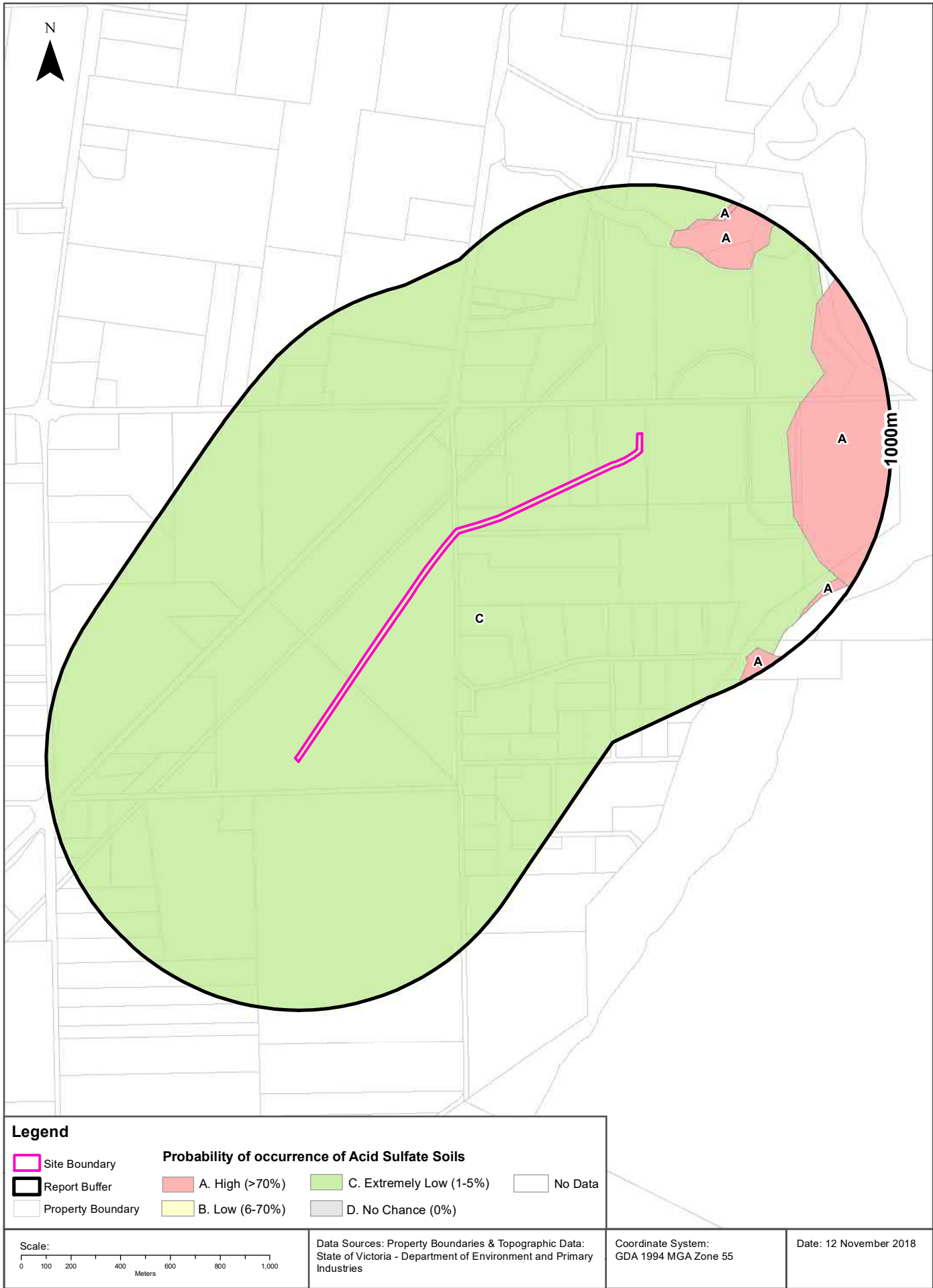
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Victorian Soil Type Mapping

Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance
POAL	Aeric Podosols	0m
SOAD	Grey Sodosols	0m
HYED	Redoxic Hydrosols	409m

Victorian Soil Type Mapping Data Source: Department of Economic Development, Jobs, Transport and Resources  
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## Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Atlas of Australian Acid Sulfate Soils

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

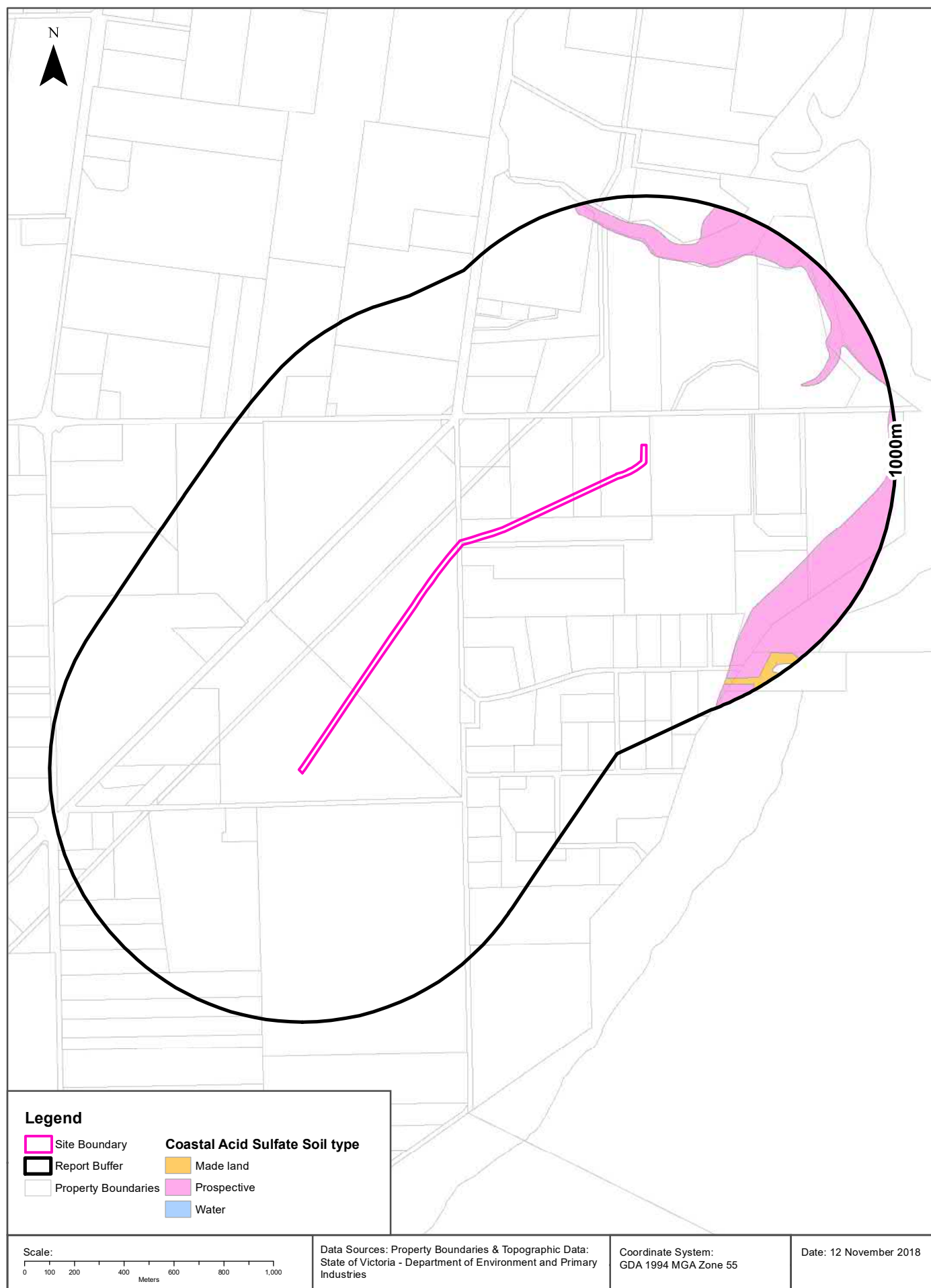
PROBCLASS	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m
A	High Probability of occurrence. >70% chance of occurrence.	580m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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# Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Coastal Acid Sulfate Soils

What are the on-site Coastal Acid Sulfate Soil types?

Coastal Acid Sulfate Soil Types
There are no Acid Sulfate areas onsite

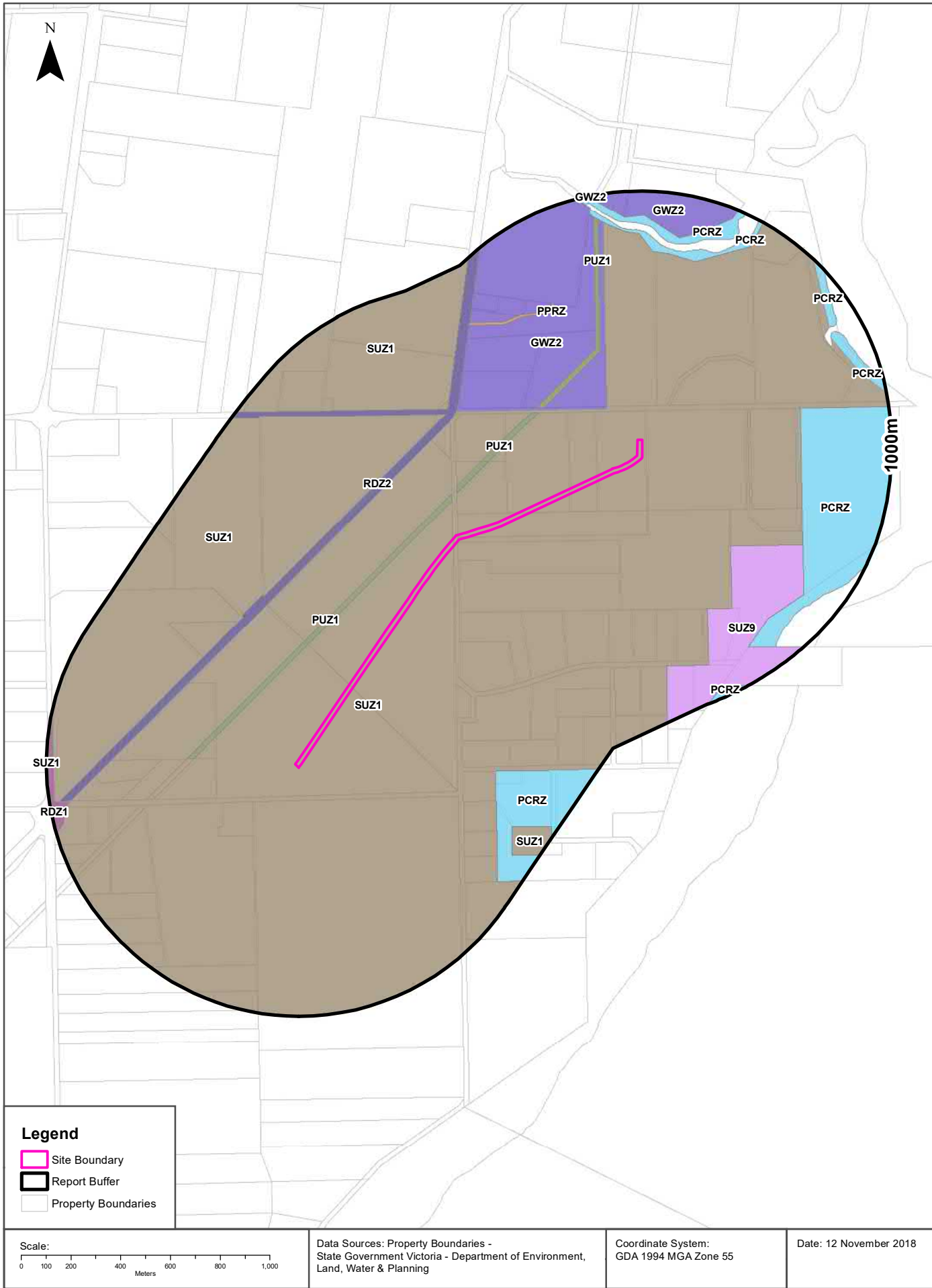
What are the Coastal Acid Sulfate Soil types within the dataset buffer?

Coastal Acid Sulfate Soil Types	Distance	Direction
Prospective	663m	East
Made land	906m	East
Prospective	925m	South

Coastal Acid Sulfate Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Planning Zones

Planning zones within the dataset buffer:

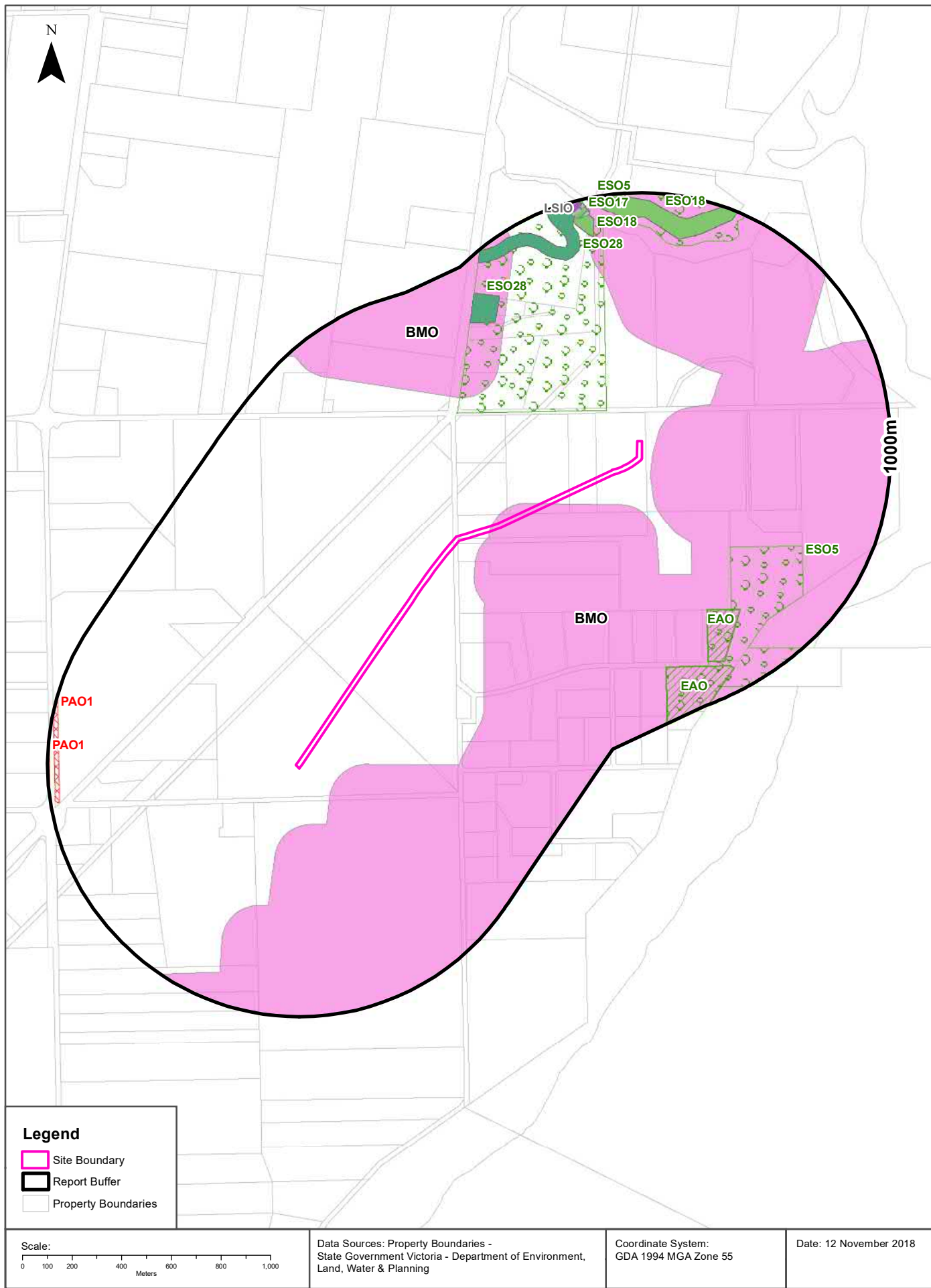
Zone Code	Description	Distance	Direction
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	0m	Onsite
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	112m	West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	165m	North
GWZ2	GREEN WEDGE ZONE - SCHEDULE 2	178m	North
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	343m	North East
RDZ2	ROAD ZONE - CATEGORY 2	344m	North West
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	375m	West
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	497m	North West
SUZ9	SPECIAL USE ZONE - SCHEDULE 9	500m	East
PPRZ	PUBLIC PARK AND RECREATION ZONE	617m	North
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	634m	East
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	662m	South East
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	748m	North East
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	799m	North East
GWZ2	GREEN WEDGE ZONE - SCHEDULE 2	825m	North
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	841m	South
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	874m	North East
RDZ1	ROAD ZONE - CATEGORY 1	914m	South West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	973m	North
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	993m	West

Planning Zone Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Planning Overlays

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Planning Overlays

Planning overlays within the dataset buffer:

Zone Code	Description	Distance	Direction
BMO	BUSHFIRE MANAGEMENT OVERLAY	0m	Onsite
ESO5	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 5	178m	North
ESO5	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 5	500m	East
BMO	BUSHFIRE MANAGEMENT OVERLAY	509m	North West
EAO	ENVIRONMENTAL AUDIT OVERLAY	647m	East
ESO28	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 28	739m	North
ESO28	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 28	784m	North
EAO	ENVIRONMENTAL AUDIT OVERLAY	791m	South East
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	825m	North East
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	840m	North
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	926m	North West
ESO17	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 17	950m	North
PAO1	PUBLIC ACQUISITION OVERLAY 1	955m	West
ESO17	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 17	977m	North
PAO1	PUBLIC ACQUISITION OVERLAY 1	993m	West

Planning Overlay Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

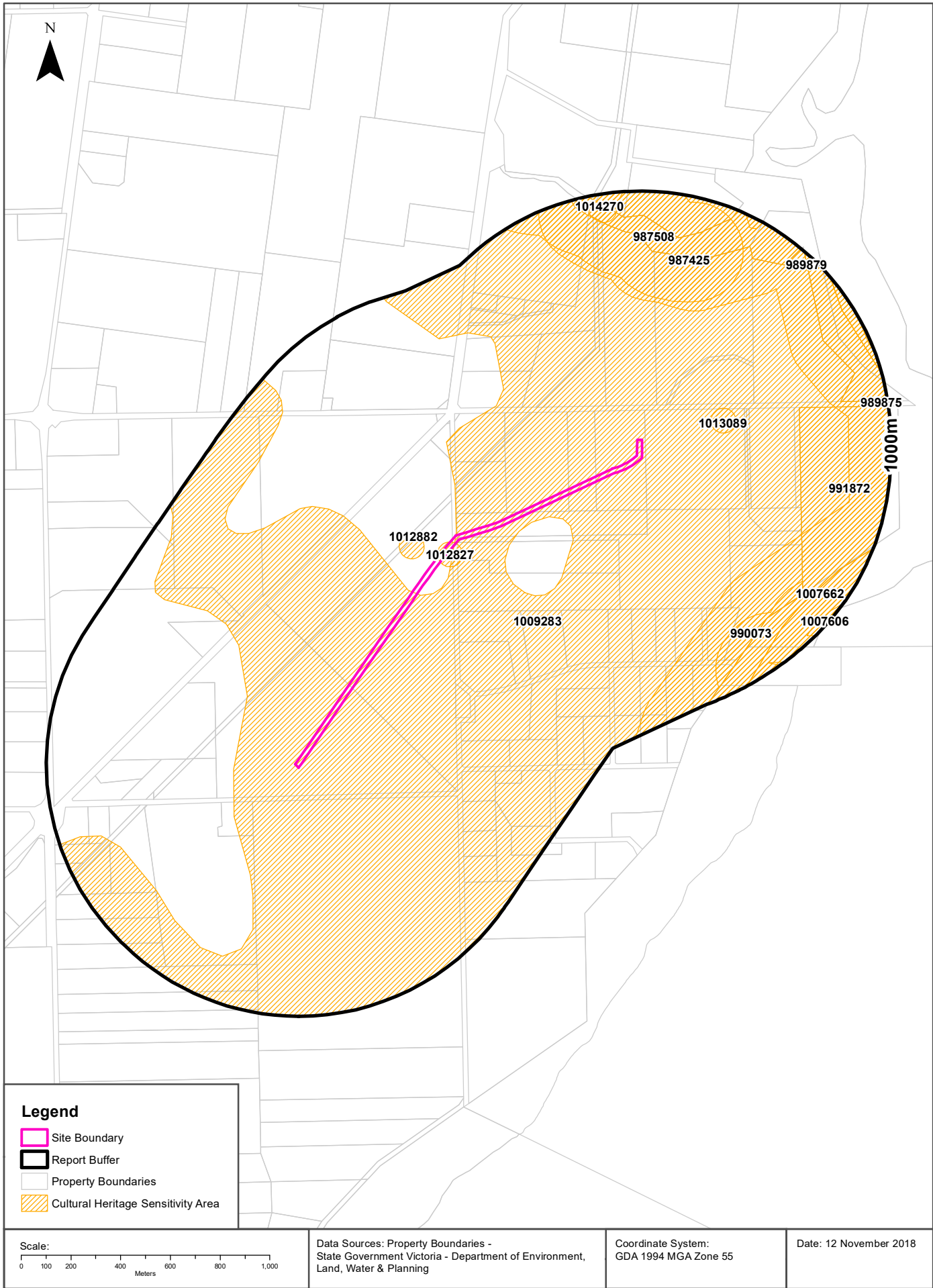
### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Victorian Heritage Register

What are the Victorian Heritage Register items located within the dataset buffer?:

VHR Number	Description	Distance	Direction
N/A	No records within buffer		

Victorian Heritage Register Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Cultural Heritage Sensitivity

Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2007, within the dataset buffer:

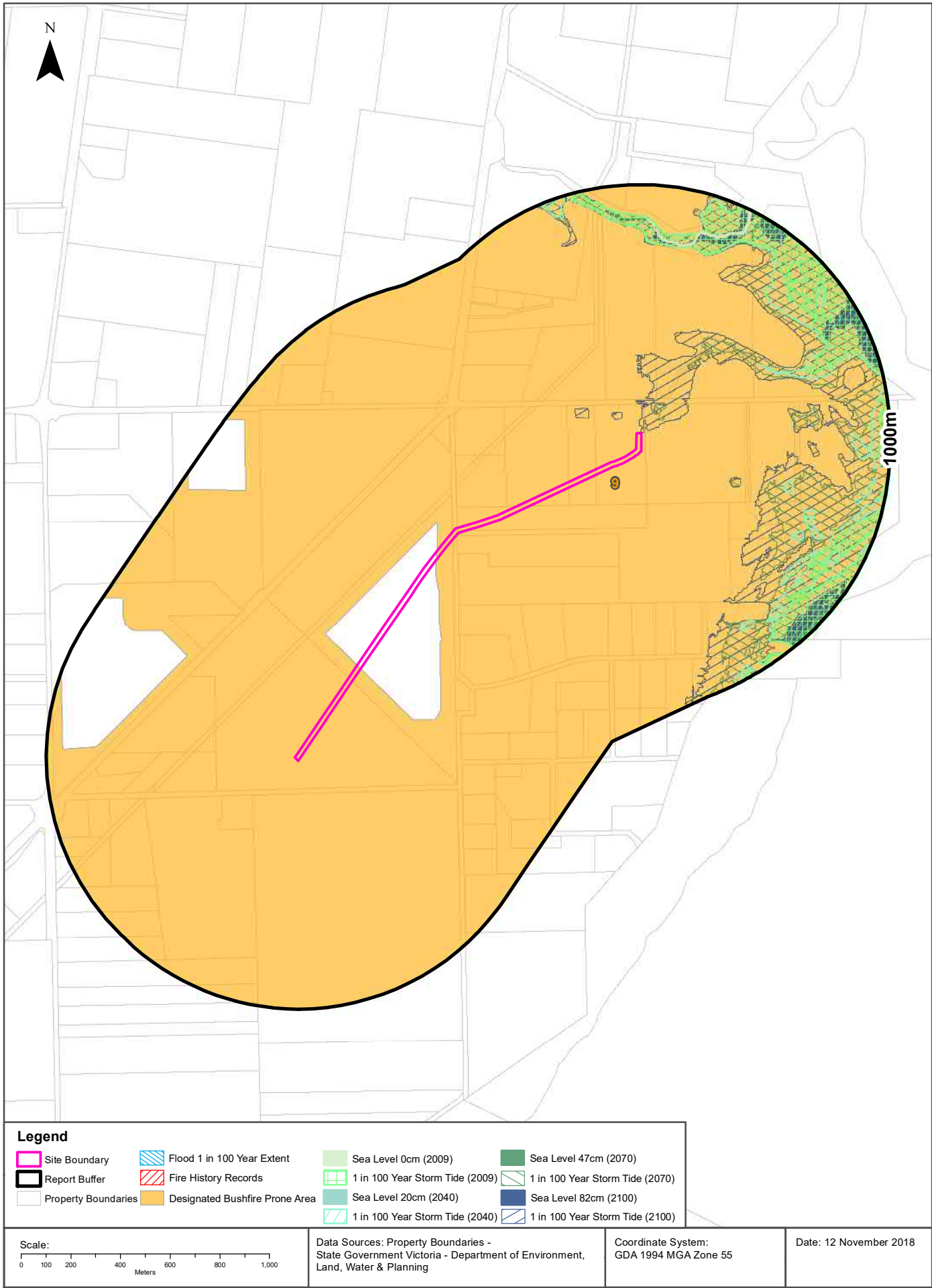
Map Id	Distance	Direction
1009283	0m	Onsite
1012827	0m	Onsite
1012882	60m	North West
1013089	286m	North East
987425	548m	South East
987508	570m	North West
991872	634m	East
990073	769m	East
1007662	872m	North East
1014270	884m	North
989879	952m	North East
1007606	958m	North East
989875	962m	East

Cultural Heritage Sensitivity Data Custodian: State Government Victoria - Dept of Planning and Community Development  
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Natural Hazards

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
9	Designated Bushfire Prone Area	LEGL./17-396	MORNINGTON PENINSULA	02/06/2017	0m	Onsite

Bushfire Prone Area Data Custodian: State Government Victoria - Dept of Transport, Planning & Local Infrastructure  
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## Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
N/A	No records within buffer									

Fire History Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records within buffer					

Flood Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

## Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

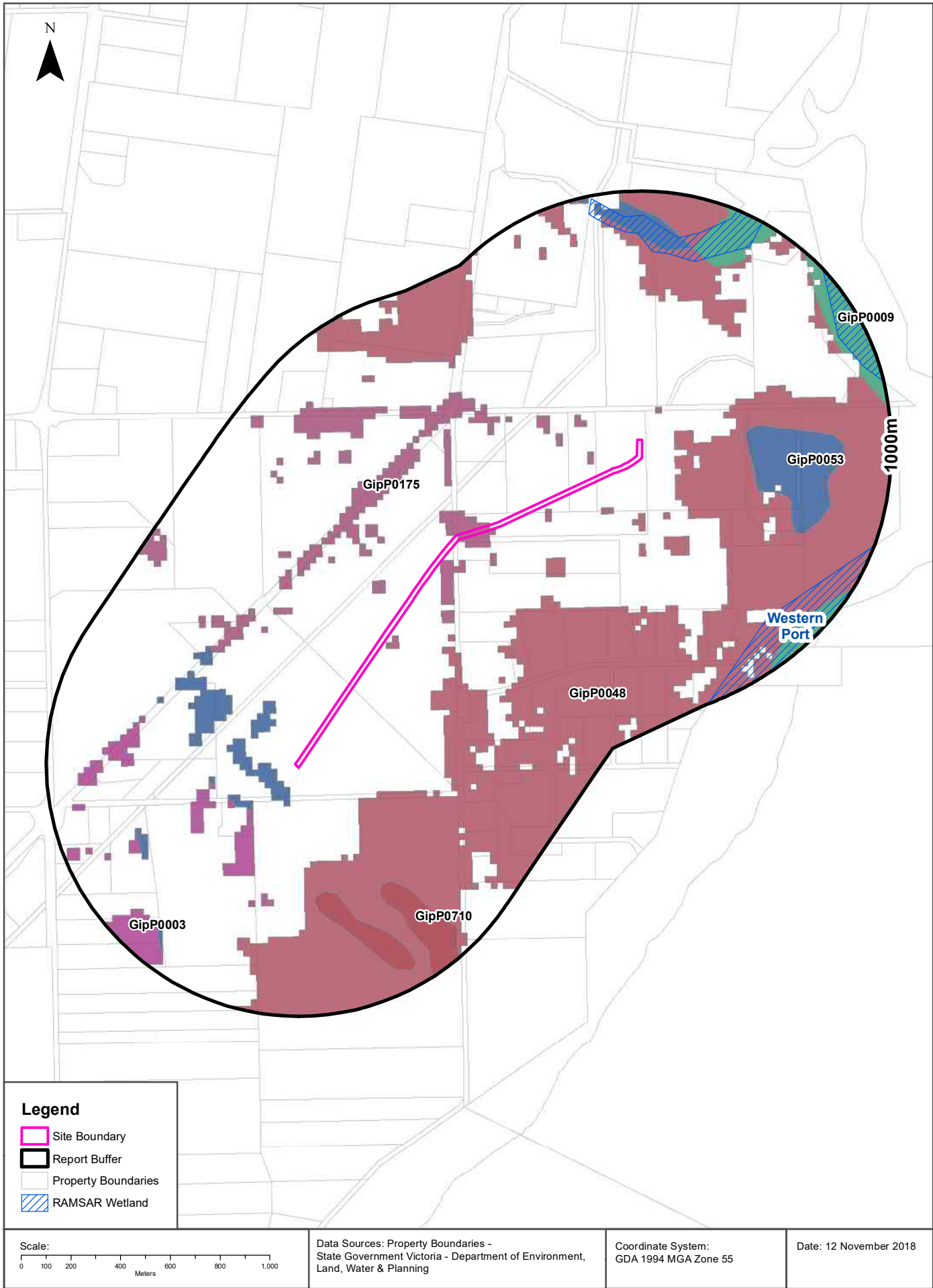
Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	1m	East
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	76m	North East
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	552m	East
Current (2009) inundation to 1-in-100 year storm tide level	704m	East
Projected 82cm sea level rise by 2100	763m	East
Projected 20cm sea level rise by 2040	766m	North East
Projected 47cm sea level rise by 2070	766m	North East
Current (2009) sea level	767m	North East

Victorian Coastal Inundation Sea Level Rise Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Ecological Constraints - Native Vegetation 2005 & RAMSAR Wetlands

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Distance
GipP0175	Grassy Woodland	0175	Lower Slopes or Hills Woodlands	Grassy	Gippsland Plain	Endangered	Common	0m
GipP0053	Swamp Scrub	0053	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	75m
GipP0048	Heathy Woodland	0048	Heathy Woodlands	Dry and/or better drained	Gippsland Plain	Least Concern	Common	127m
GipP0003	Damp Sands Herb-rich Woodland	0003	Herb-rich Woodlands	Damp Sands	Gippsland Plain	Vulnerable	Common	252m
GipP0710	Damp Heathland	0710	Heathlands	Not well drained	Gippsland Plain	Rare	Rare	503m
GipP0009	Coastal Saltmarsh	0009	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Common	754m

Native Vegetation Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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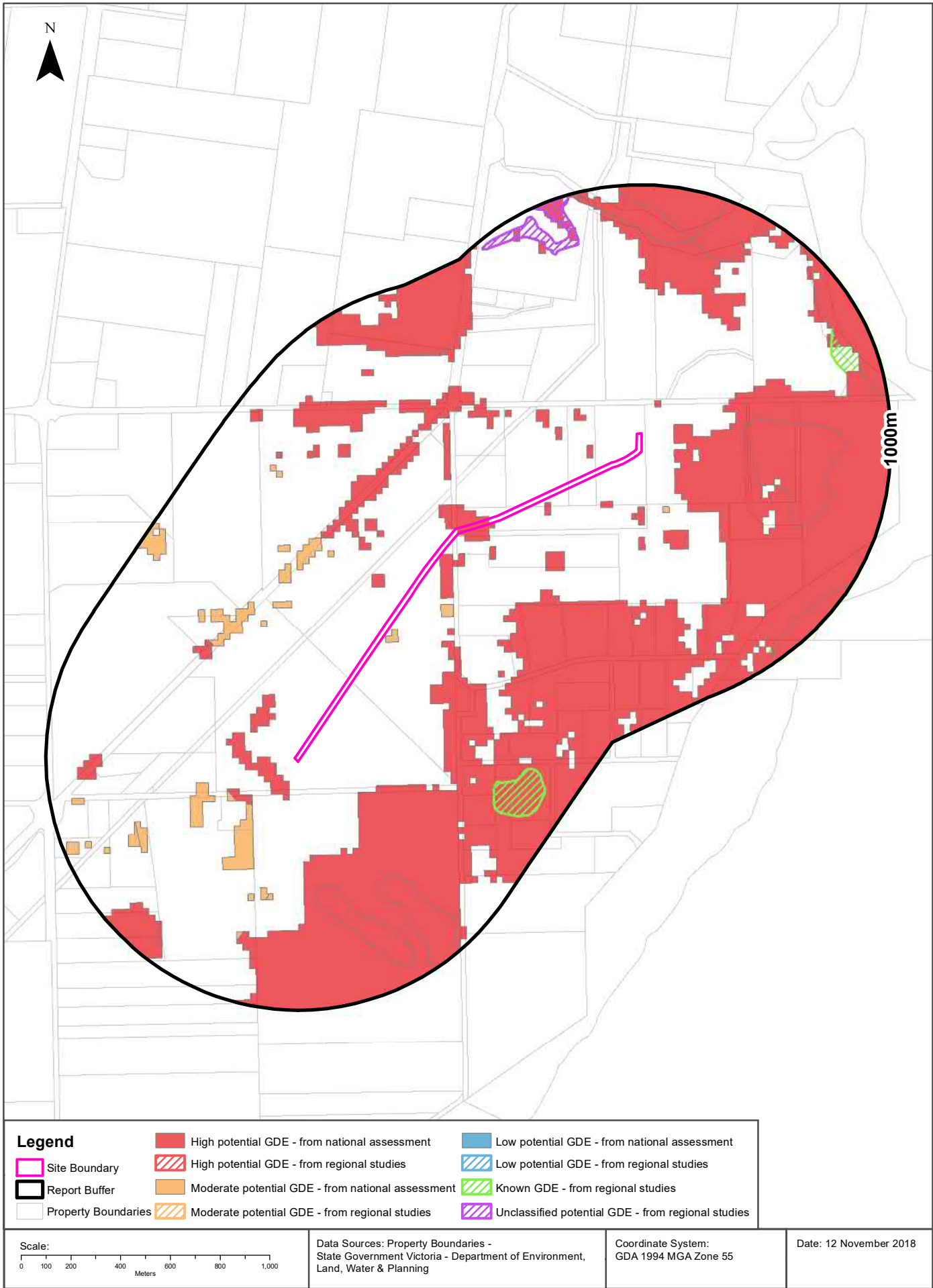
### RAMSAR Wetlands

What RAMSAR wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
10	Western Port	Western Port	747m	South East

RAMSAR Wetland Area Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Ecological Constraints

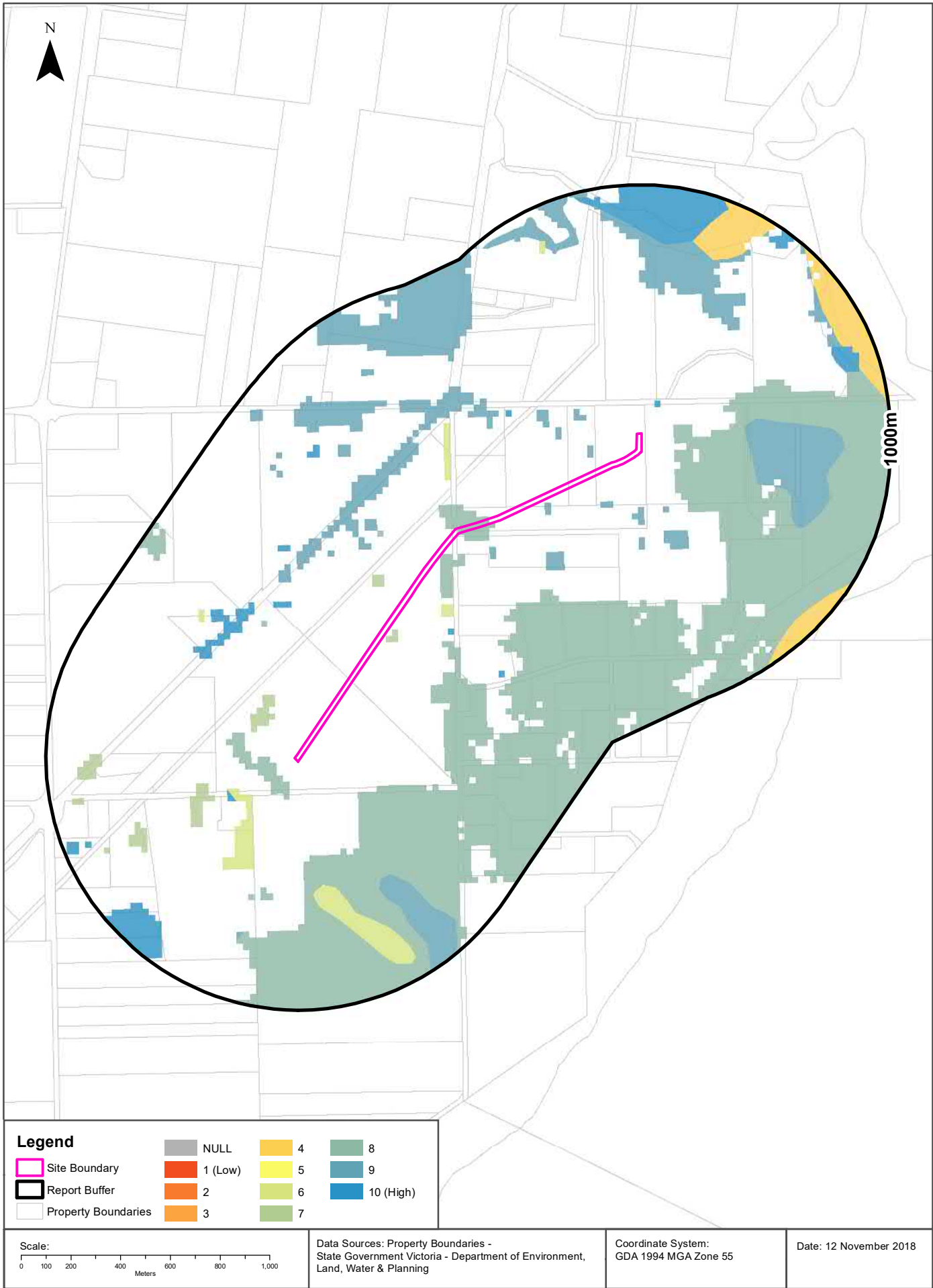
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Groundwater Dependent Ecosystems Atlas

What GDEs exist within the dataset buffer?

GDE Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		Moderate potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	6m
Aquatic	Gordon Rolph Reserve	Known GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		706m
Aquatic	WATSON CREEK	High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	River	Unconsolidated sedimentary	756m
Aquatic		Unclassified potential GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		792m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 9)

### Inflow Dependent Ecosystems Likelihood

What IDEs exist within the dataset buffer?

GDE Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		7	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	6m
Terrestrial		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	9m
Terrestrial		6	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	116m
Terrestrial		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	118m
Aquatic	Gordon Rolph Reserve	8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		706m
Terrestrial		4	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	754m
Aquatic	WATSON CREEK	10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	River	Unconsolidated sedimentary	756m
Aquatic		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		792m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology  
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# LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

**Address: Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810  
(Section 10)**

**Date: 09 Nov 2018 15:15:12**

**Reference: LS004579 EP**

**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. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

## Table of Contents

Location Confidences.....	2
Dataset Listings .....	3
Site Location Aerial .....	5
Topographic Features.....	6
Elevation Contours.....	7
EPA Records.....	8
Waste Management Facilities .....	12
Former Gasworks.....	13
Historical Business Activities.....	14
Historical Aerial Imagery & Maps .....	20
Features of Interest .....	37
Hydrogeology & Groundwater .....	39
Groundwater Boreholes .....	41
Historical Mining Activity .....	52
Geology .....	53
Soil Types.....	56
Acid Sulfate Soils .....	60
Planning Zones .....	64
Planning Overlays.....	66
Heritage.....	68
Natural Hazards .....	71
Ecological Constraints.....	74
Terms & Conditions.....	80

## 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:

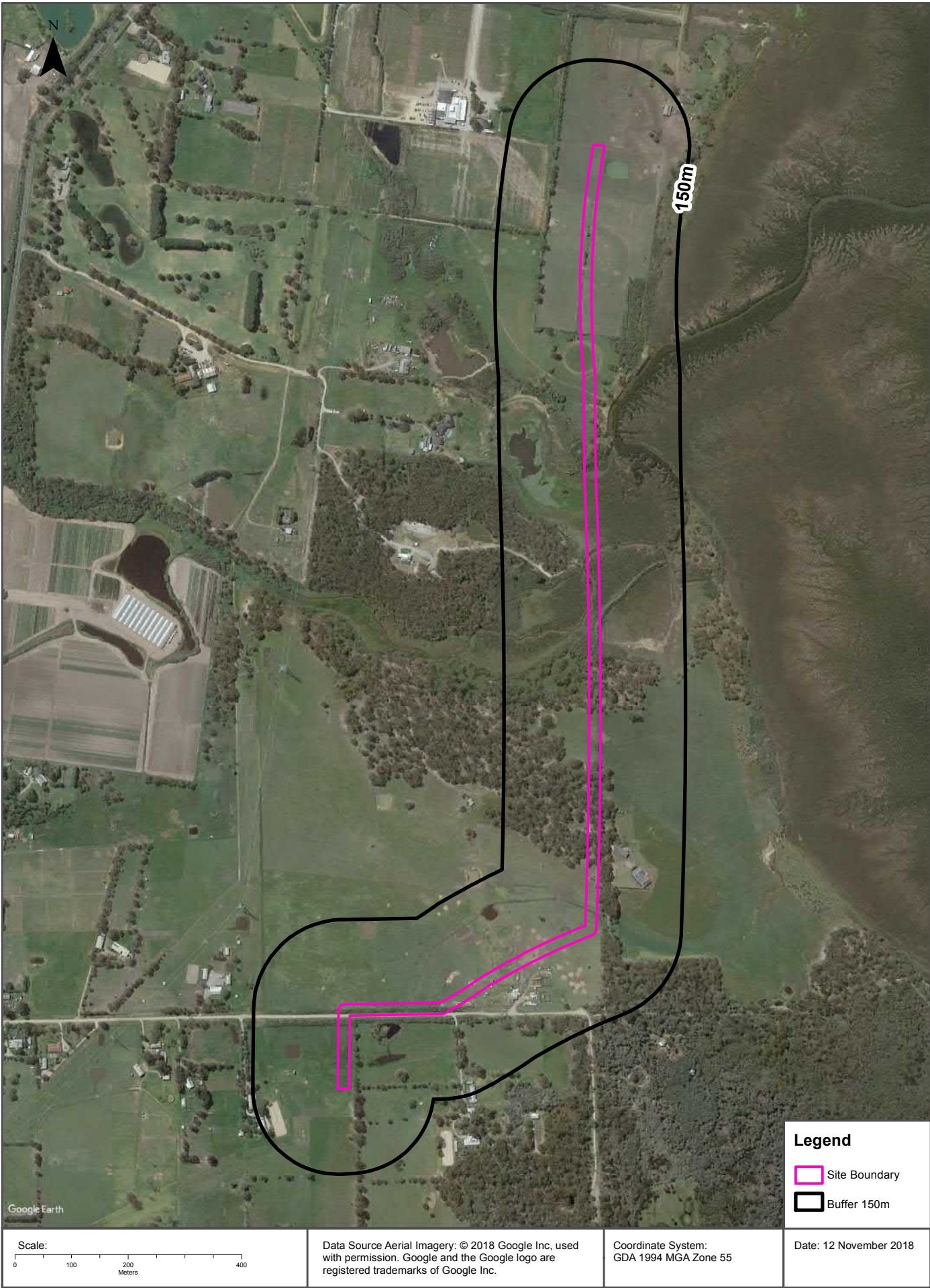
Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	08/10/2018	08/10/2018	Quarterly	-	-	-	-
Current Priority Sites	Environment Protection Authority (Vic)	17/10/2018	31/08/2018	Monthly	1000	0	0	0
Former Priority Sites & other Pollution Notices	Environment Protection Authority (Vic)	19/10/2018	19/10/2018	Monthly	1000	0	0	0
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	19/09/2018	Monthly	1000	0	0	0
Former Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
Works Approvals	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	06/11/2018	07/03/2017	Quarterly	1000	0	0	0
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000	0	0	0
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	23/10/2018	23/10/2018	Quarterly	1000	0	0	0
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	06/09/2018	06/09/2018	Quarterly	1000	0	0	0
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000	0	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	-	3	3
UBD Business Directory 1960-62 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1960-62 (Road & Area Matches)	Hardie Grant			Not required	150	-	6	6
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
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	1	1	6
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	30/10/2018	01/10/2018	Quarterly	2000	0	0	70
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	27/07/2018	17/02/2010	As required	2000	0	0	16
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	18/10/2018	20/07/2018	As required	1000	0	0	0
Geological Units 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	2	-	5
Geological Structures 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	1	2	2
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000	3	3	3
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	2	2	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000	2	2	3
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	3	4	23
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	3	3	22
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	0	0
Cultural Heritage Sensitivity	State Government Victoria - Department of Planning and Community Development	12/10/2018	12/10/2018	Quarterly	1000	4	7	17
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	12/10/2018	16/05/2018	Quarterly	1000	1	1	2
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	28/06/2018	Quarterly	1000	0	0	0
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	18/11/2014	Quarterly	1000	0	0	0
Victorian Coastal Inundation Sea Level Rise	Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000	8	9	9
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000	5	5	6
RAMSAR Wetlands	State Government Victoria - Department of Environment, Land, Water & Planning	28/03/2017	24/06/2013	None planned	1000	1	1	1
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	1	2	6
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	3	5	11



# Aerial Imagery 2017

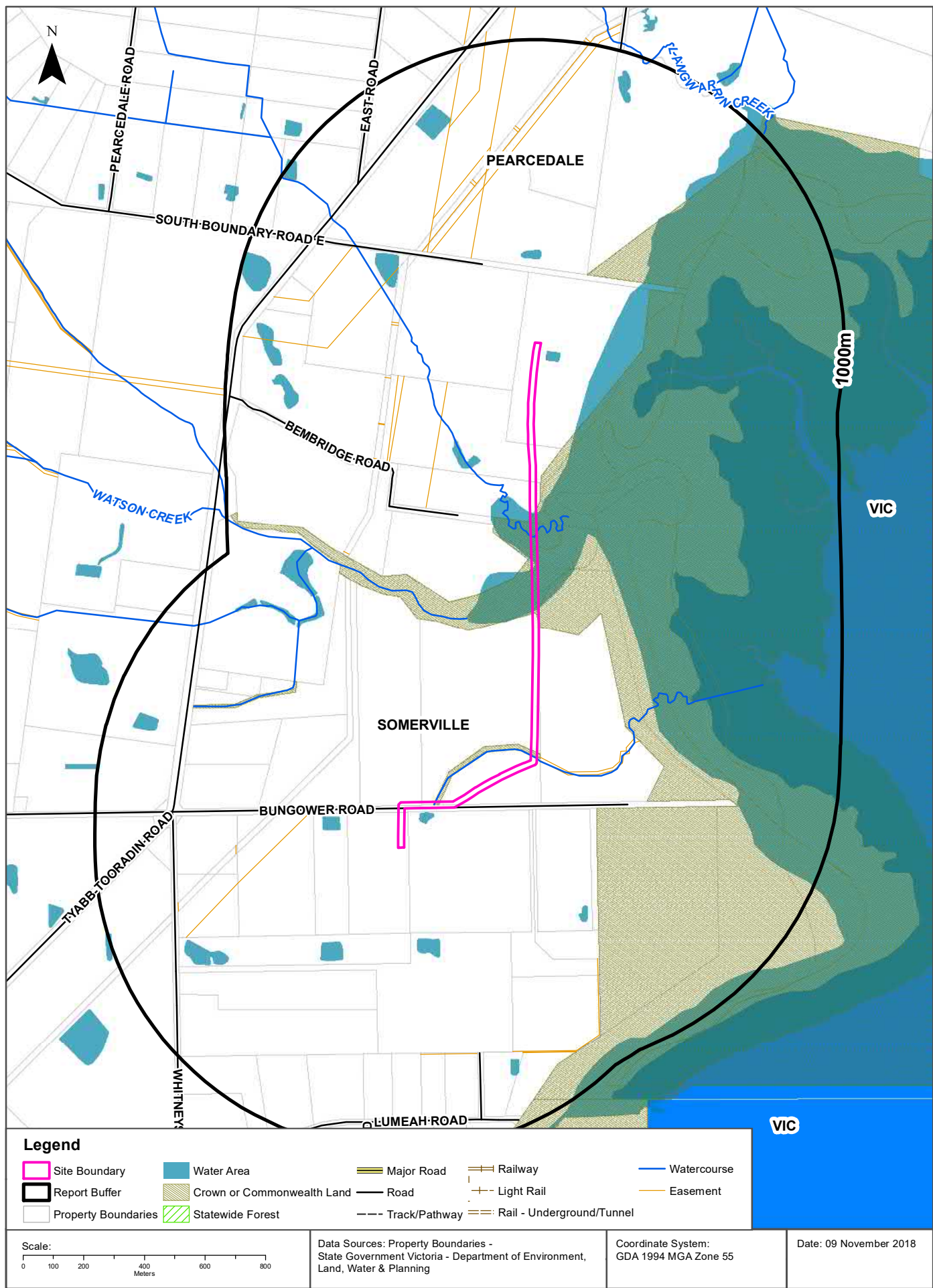
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



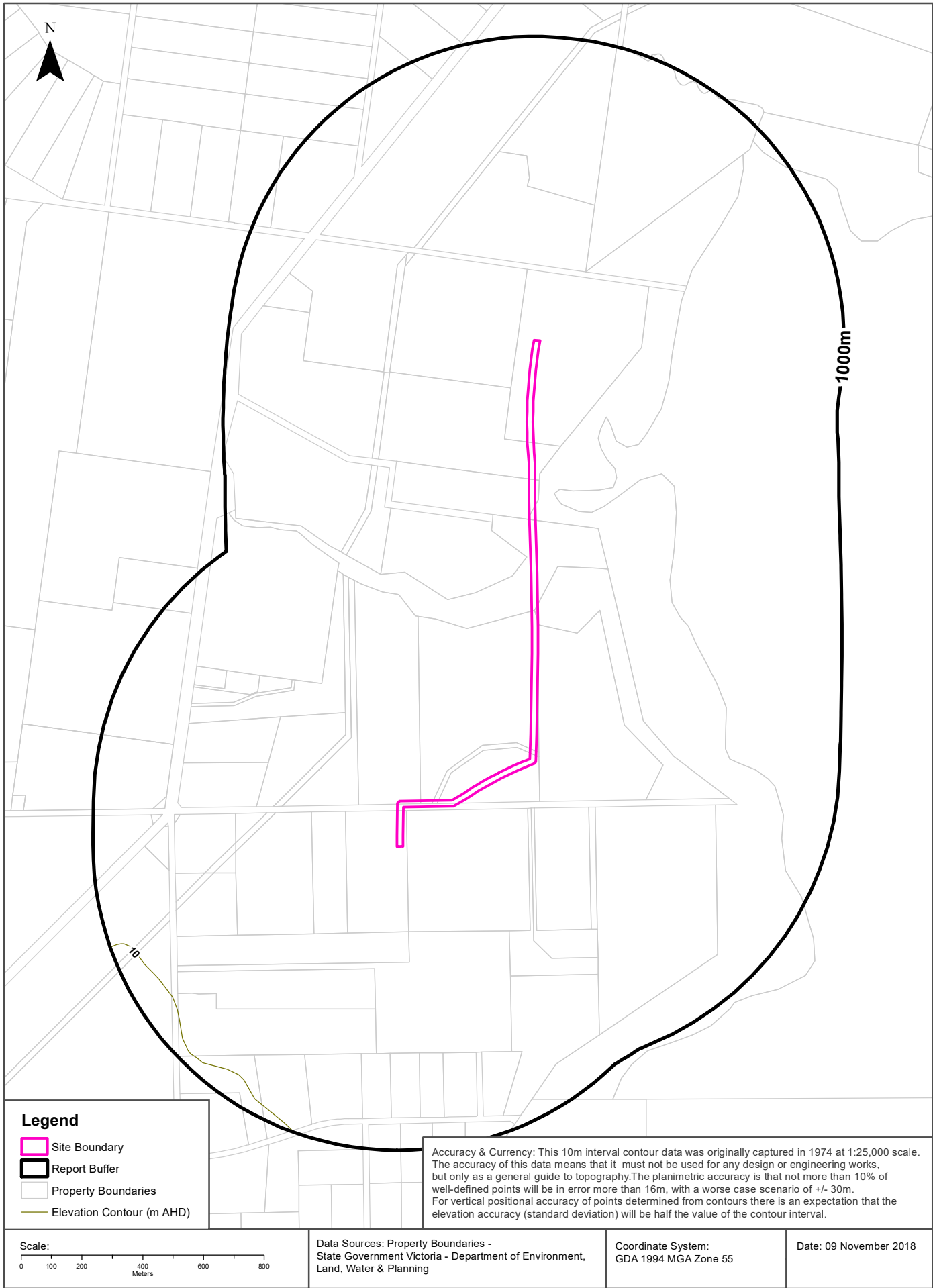


# Topographic Data

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



Elevation Contours (m AHD) 10m Interval at 1:25,000  
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
N/A	No records in buffer					

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

**Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.**

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
N/A	No records in buffer									

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Loc Conf	Distance	Direction
N/A	No records in buffer							

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Loc Conf	Distance	Direction
N/A	No records in buffer						

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer									

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer						

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

## EPA Works Approvals

EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
N/A	No records in buffer								

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### 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: Australian Government Geoscience Australia  
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

### Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
N/A	No records in buffer								

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

### EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste sites within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist' (m)	Direct
N/A	No records in buffer									

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

### EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist' (m)	Direction
No records in buffer								

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

## Former Gasworks

**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)**

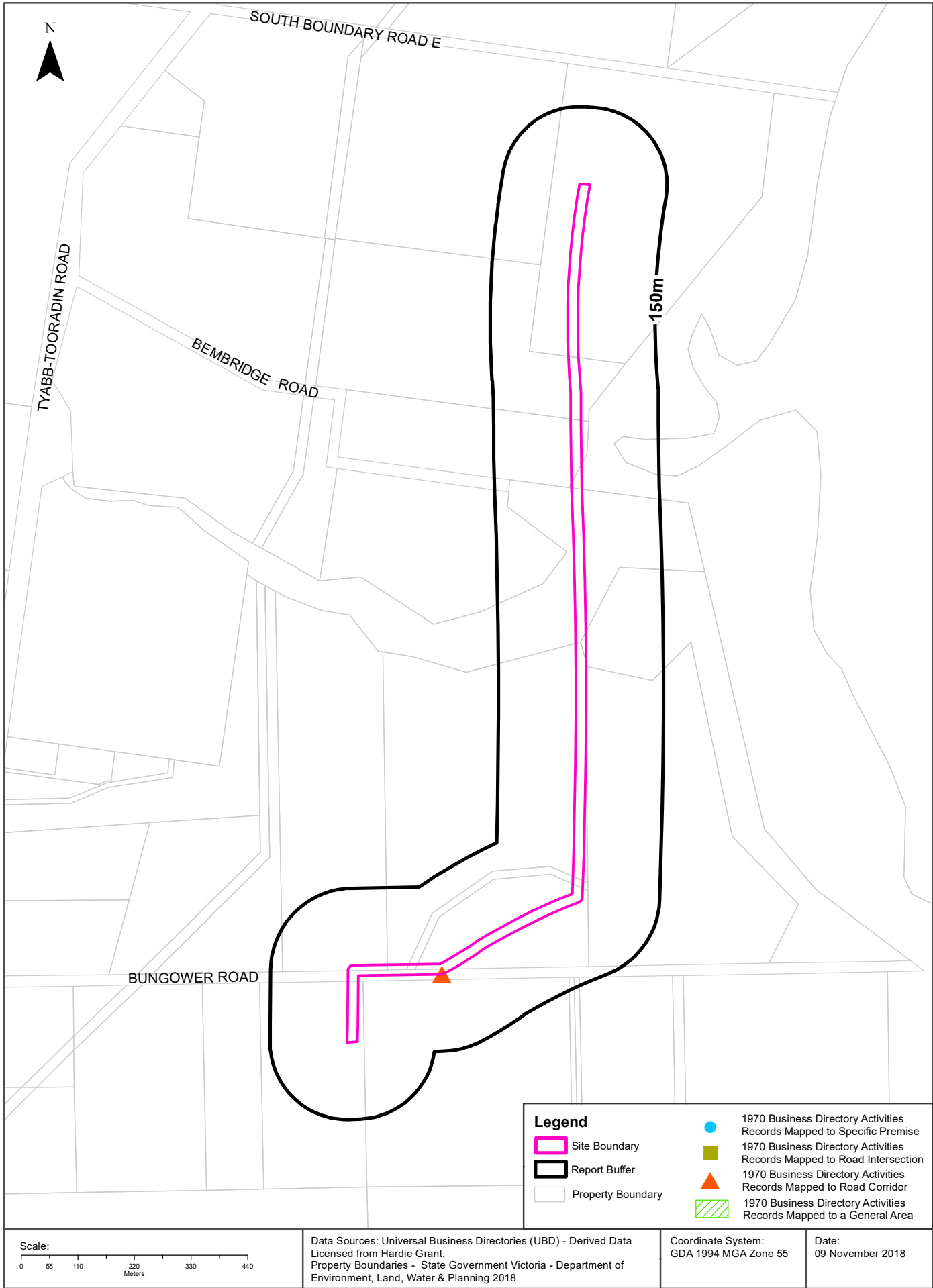
## Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:

Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources





## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### 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				

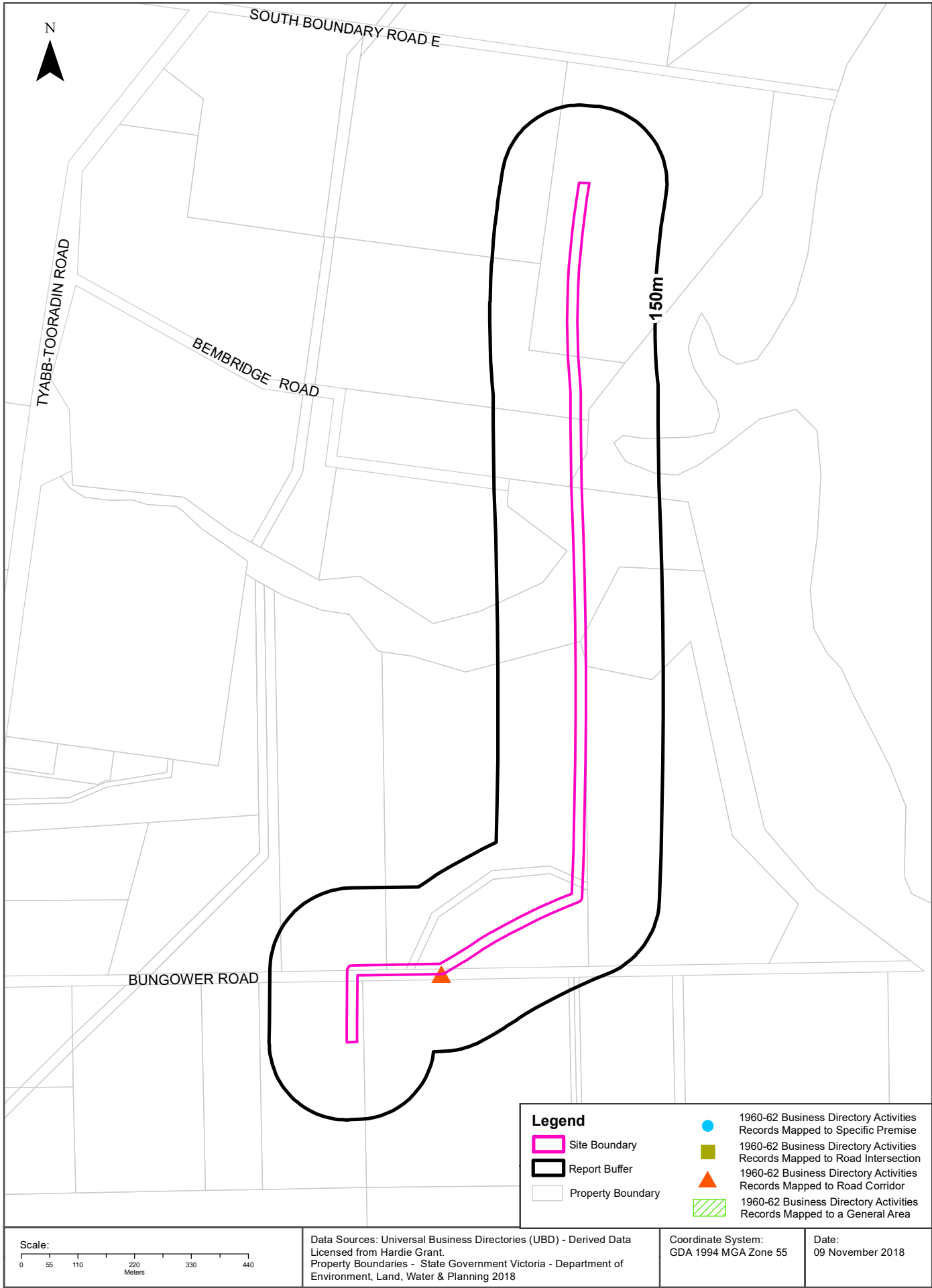
Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

### 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
APIARISTS	Johnson, Bruce,. Bungower Rd. Somerville	45506	Road Match	0m
PIG STUD FARMS	Southmead Farm,. Bungower Rd. Somerville	45573	Road Match	0m
POULTRY TARMS	Southmead Farm,. Bungower Rd. Somerville	45578	Road Match	0m

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



## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### 1960-62 Business Directory Records Premise or Road Intersection Matches

Records from the 1960-62 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Directory	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

### 1960-62 Business Directory Records Road or Area Matches

Records from the 1960-62 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.	Directory	Location Confidence	Distance to Road Corridor or Area
CARRIERS & CARTAGE CONTRACTORS	Munroe, J., Bungower Rd., Somerville	131800	East Victoria 1961-62	Road Match	0m
CONFECTIONERY SHOPS & MILK BARS	Southmead Farm, Bungower Rd., Somerville	131812	East Victoria 1961-62	Road Match	0m
LIVESTOCK TRANSPORTS	Munroe, J., Bungower Rd., Somerville	131836	East Victoria 1961-62	Road Match	0m
ORCHARDISTS	Southmead Farm, Bungower Rd., Somerville	131849	East Victoria 1961-62	Road Match	0m
PIG STUD FARMS	Southmead Farm, Bungower Rd., Somerville	131852	East Victoria 1961-62	Road Match	0m
POULTRY FARMS	Southmead Farm, Bungower Rd., Somerville	131856	East Victoria 1961-62	Road Match	0m

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

## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### 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				

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### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### 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

### 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:

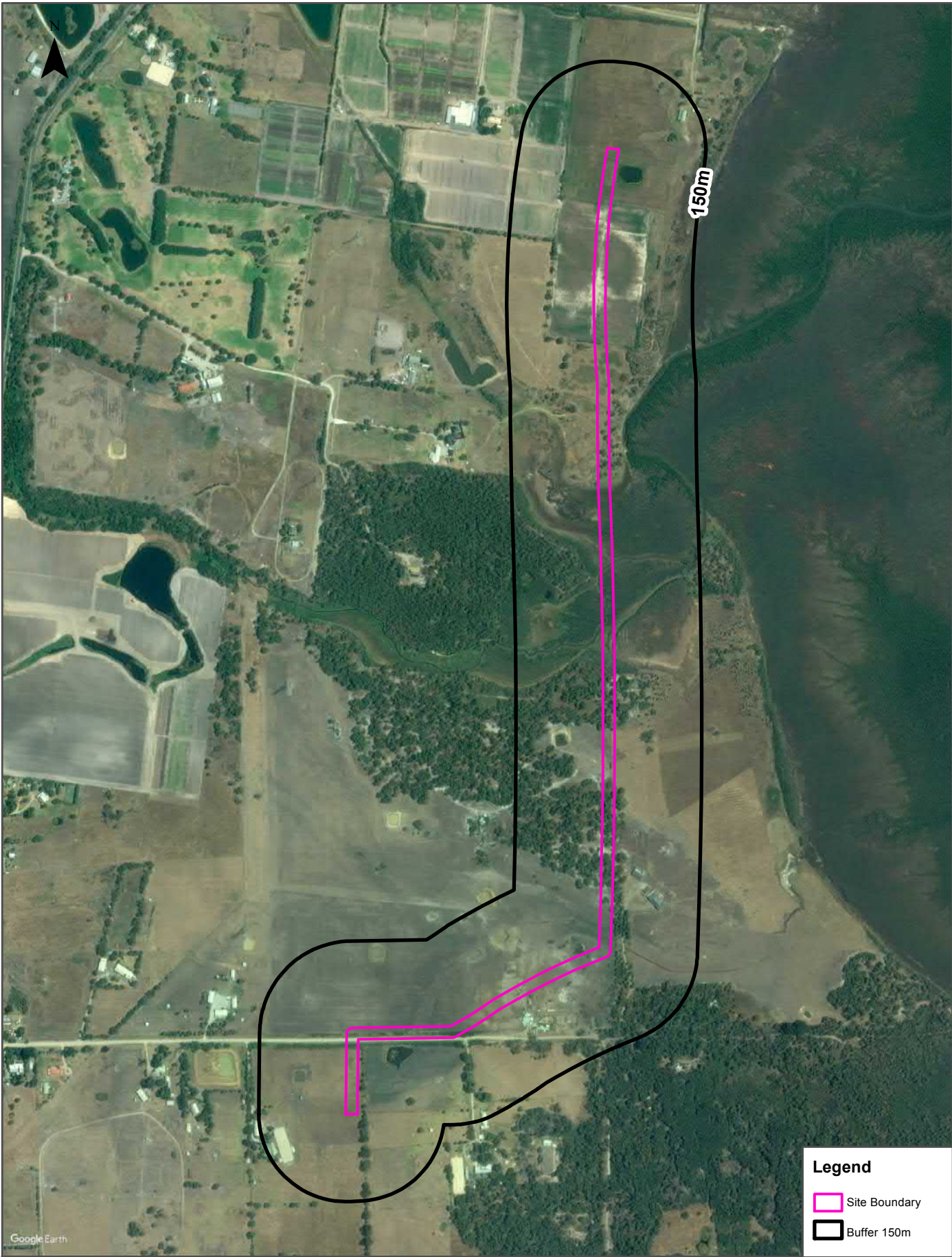
Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer				

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Aerial Imagery 2010

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

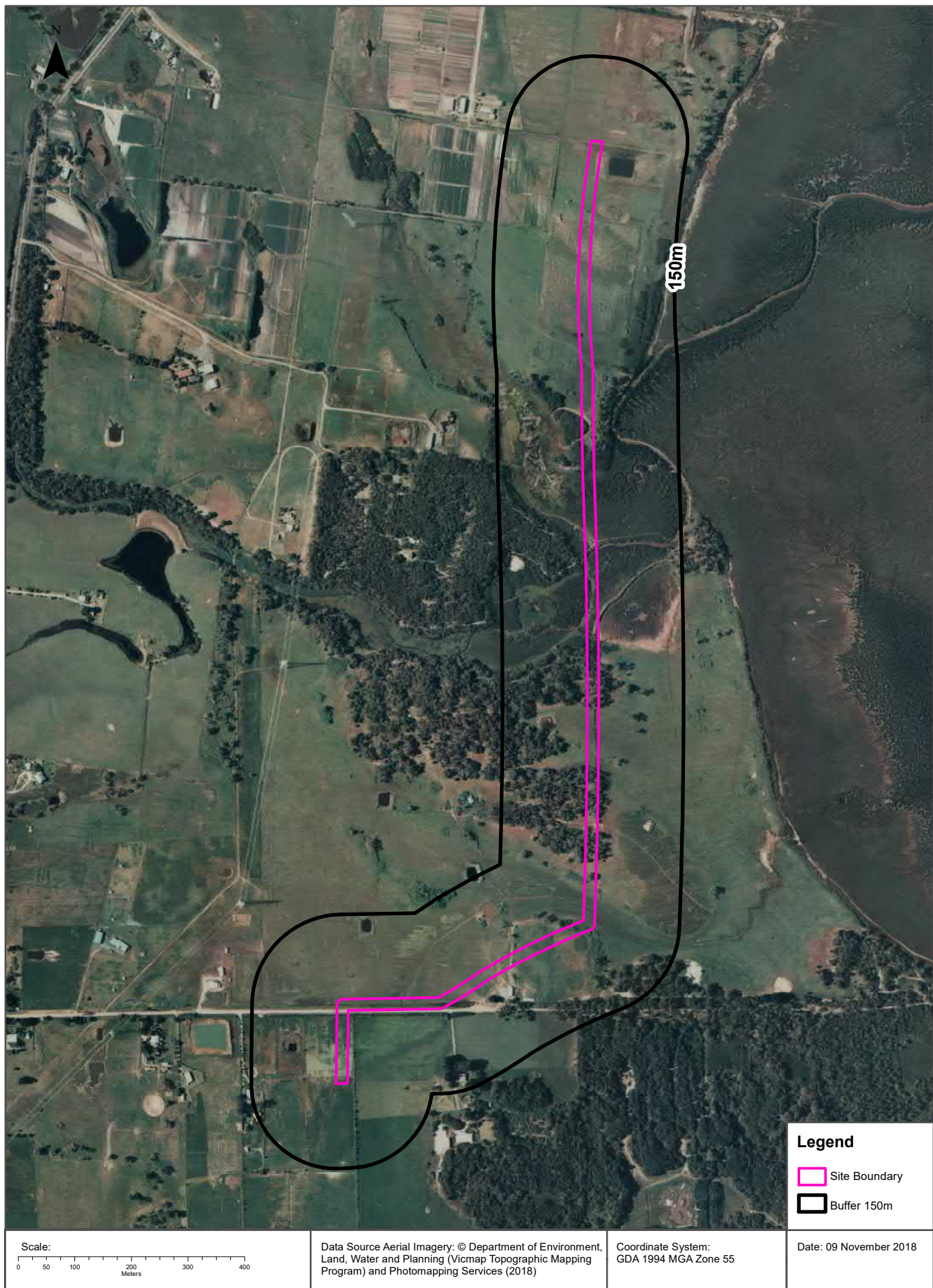


Scale: 0 100 200 400 Meters	Data Source Aerial Imagery: © 2018 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.	Coordinate System: GDA 1994 MGA Zone 55	Date: 12 November 2018
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Aerial Imagery 1989

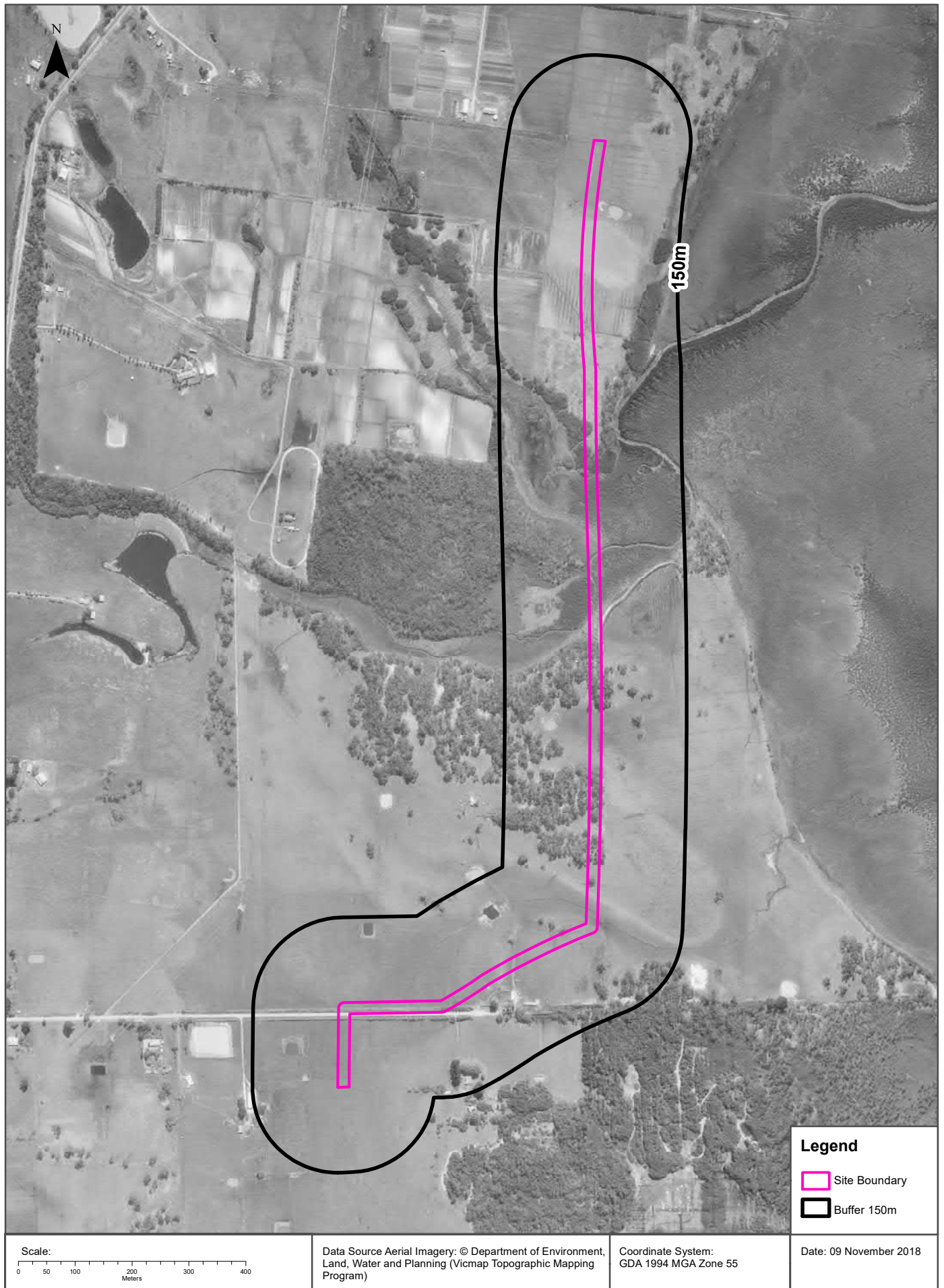
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





## Aerial Imagery 1985

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## Aerial Imagery 1979

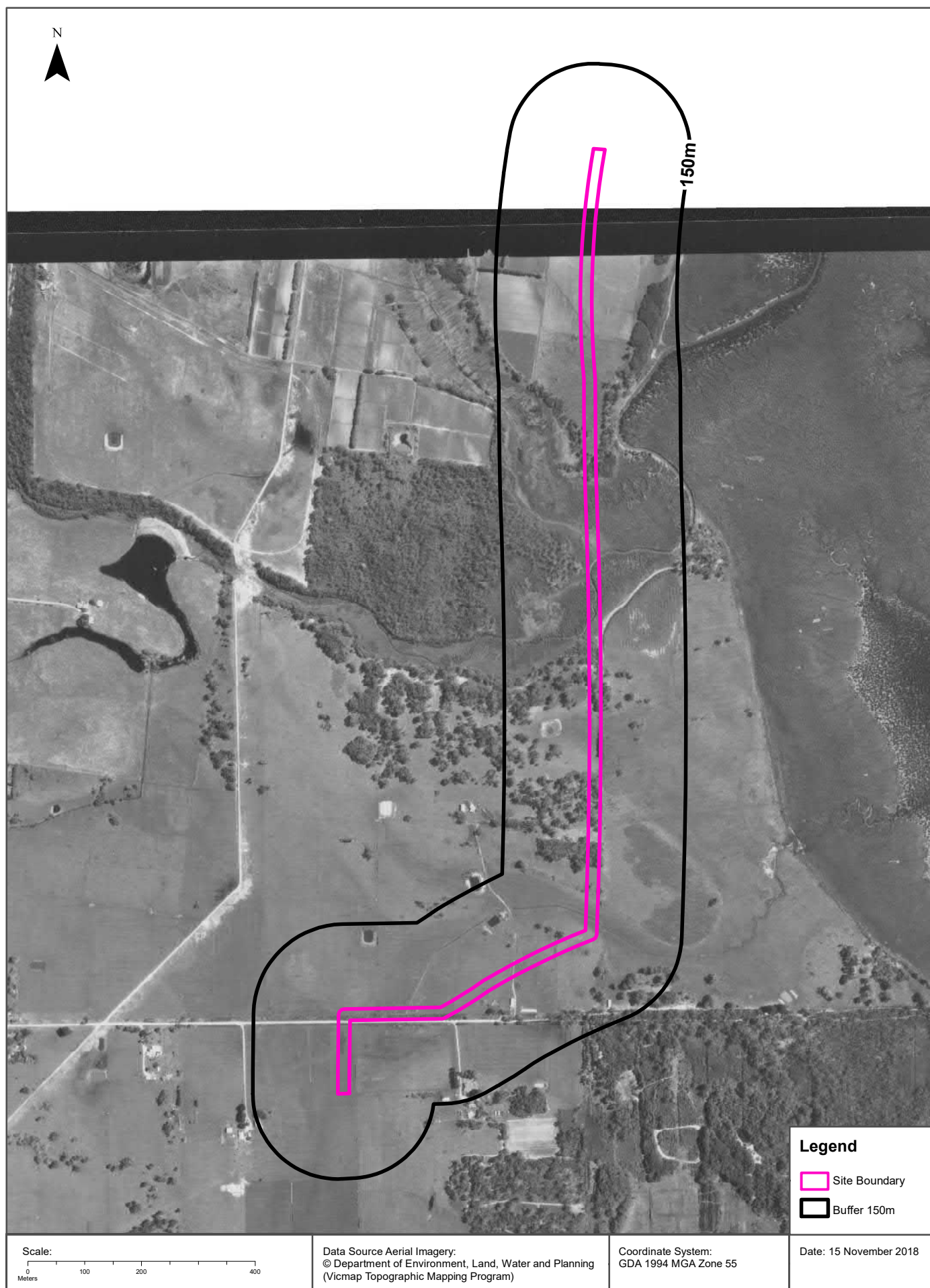
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





## Aerial Imagery 1975

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





## Aerial Imagery 1974

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## Aerial Imagery 1968

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



# Aerial Imagery 1968

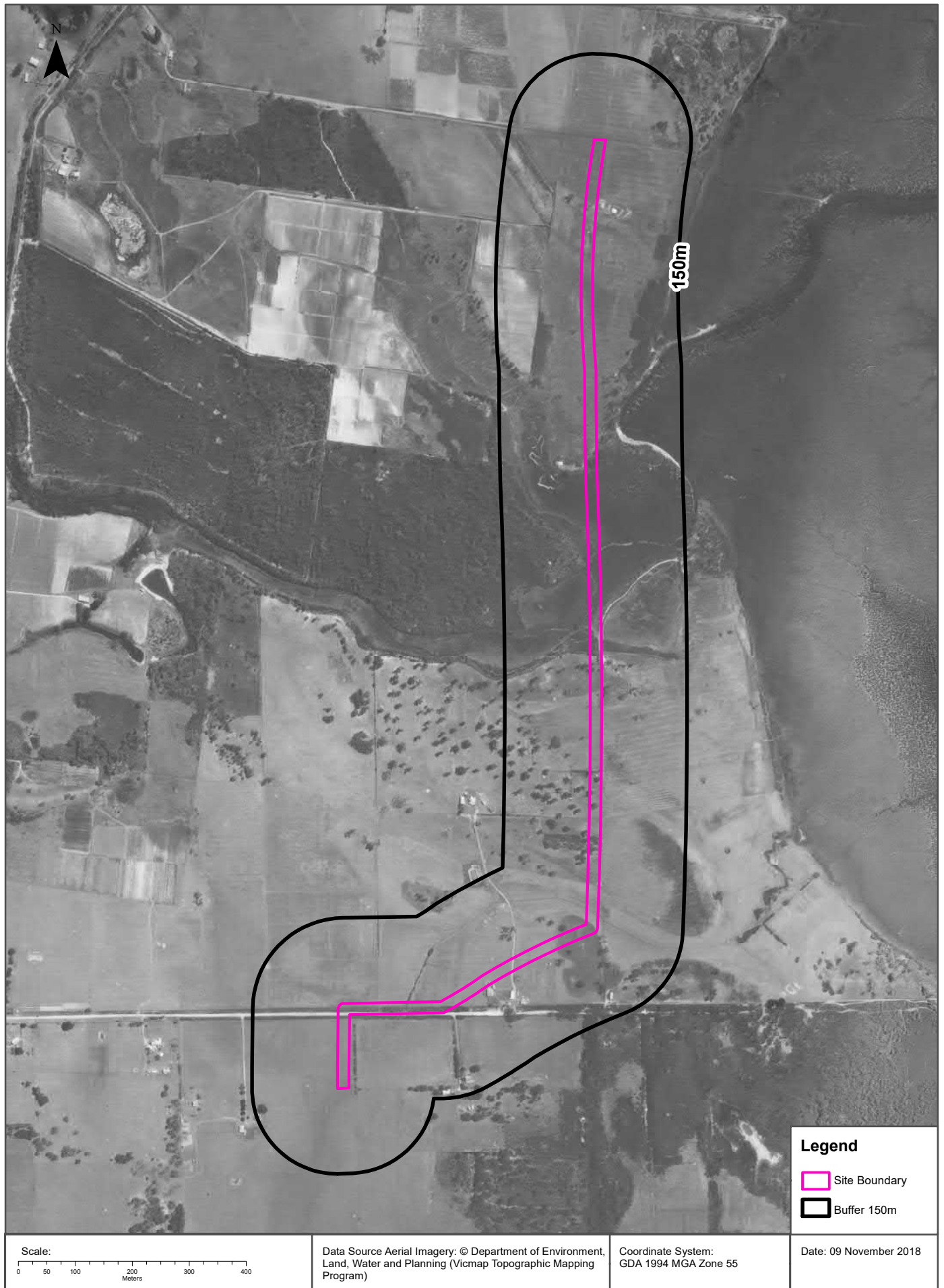
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





## Aerial Imagery 1962

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



Aerial Imagery 1957

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





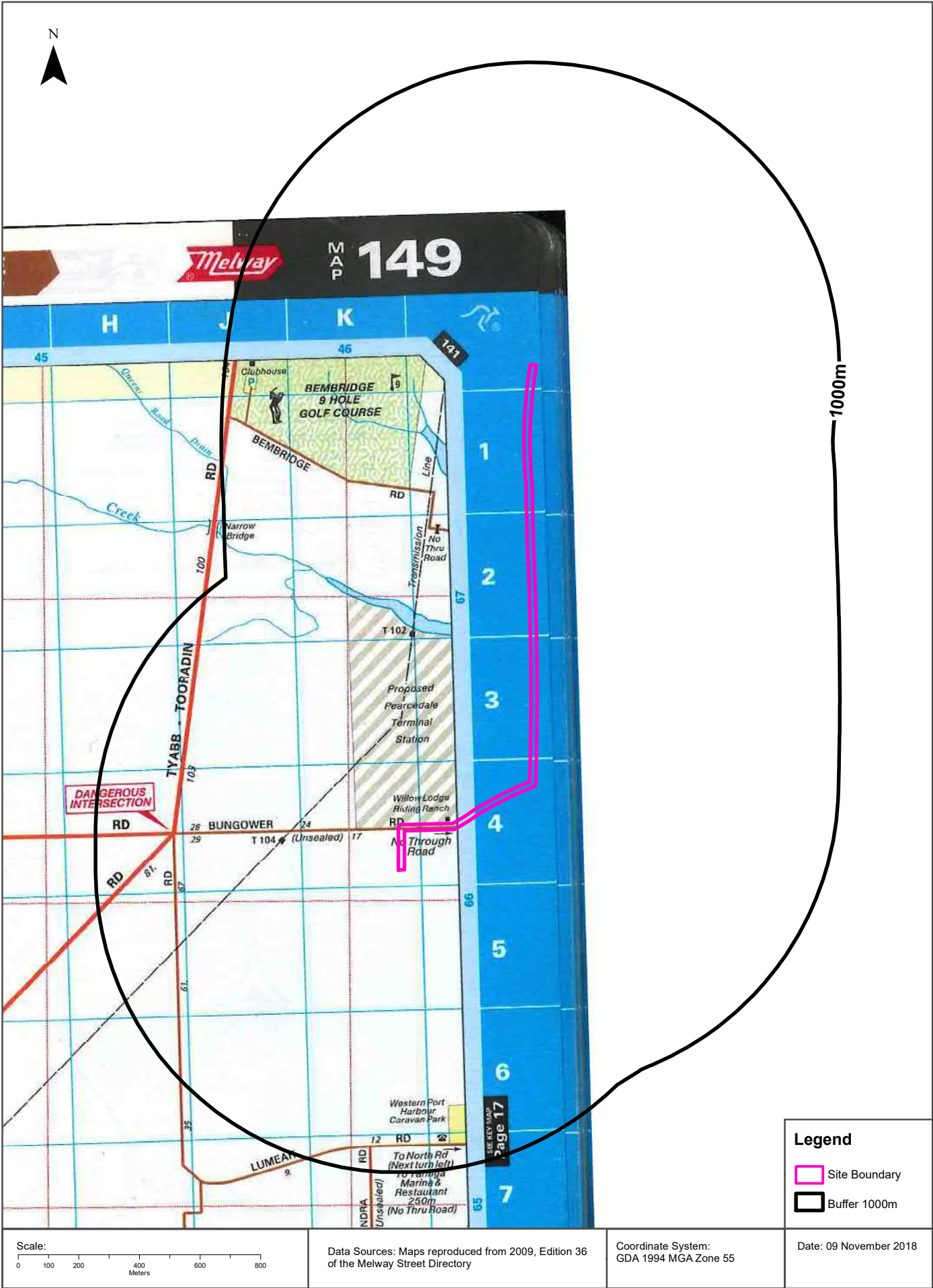
# Aerial Imagery 1957

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



Historical Map 2009

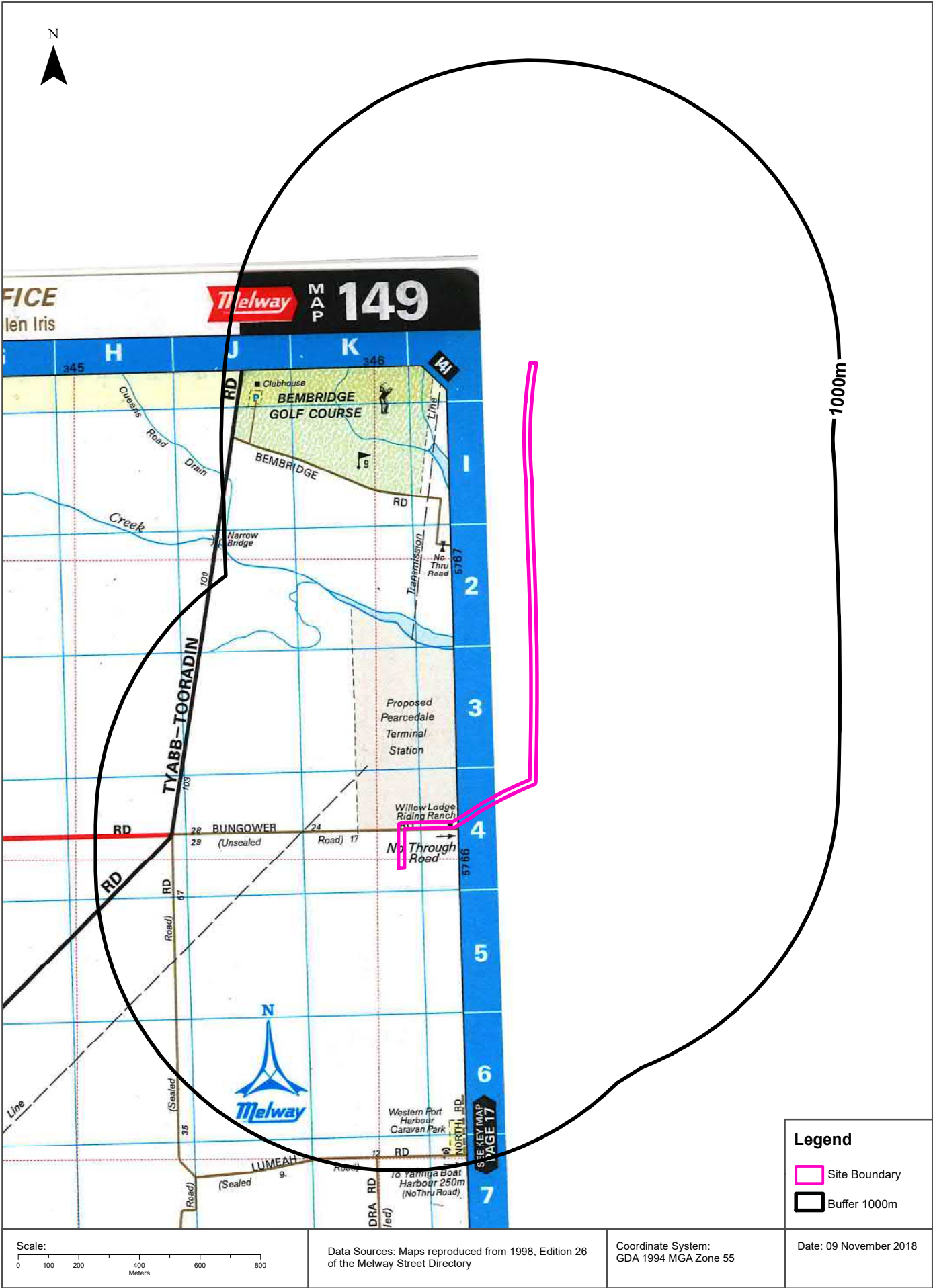
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



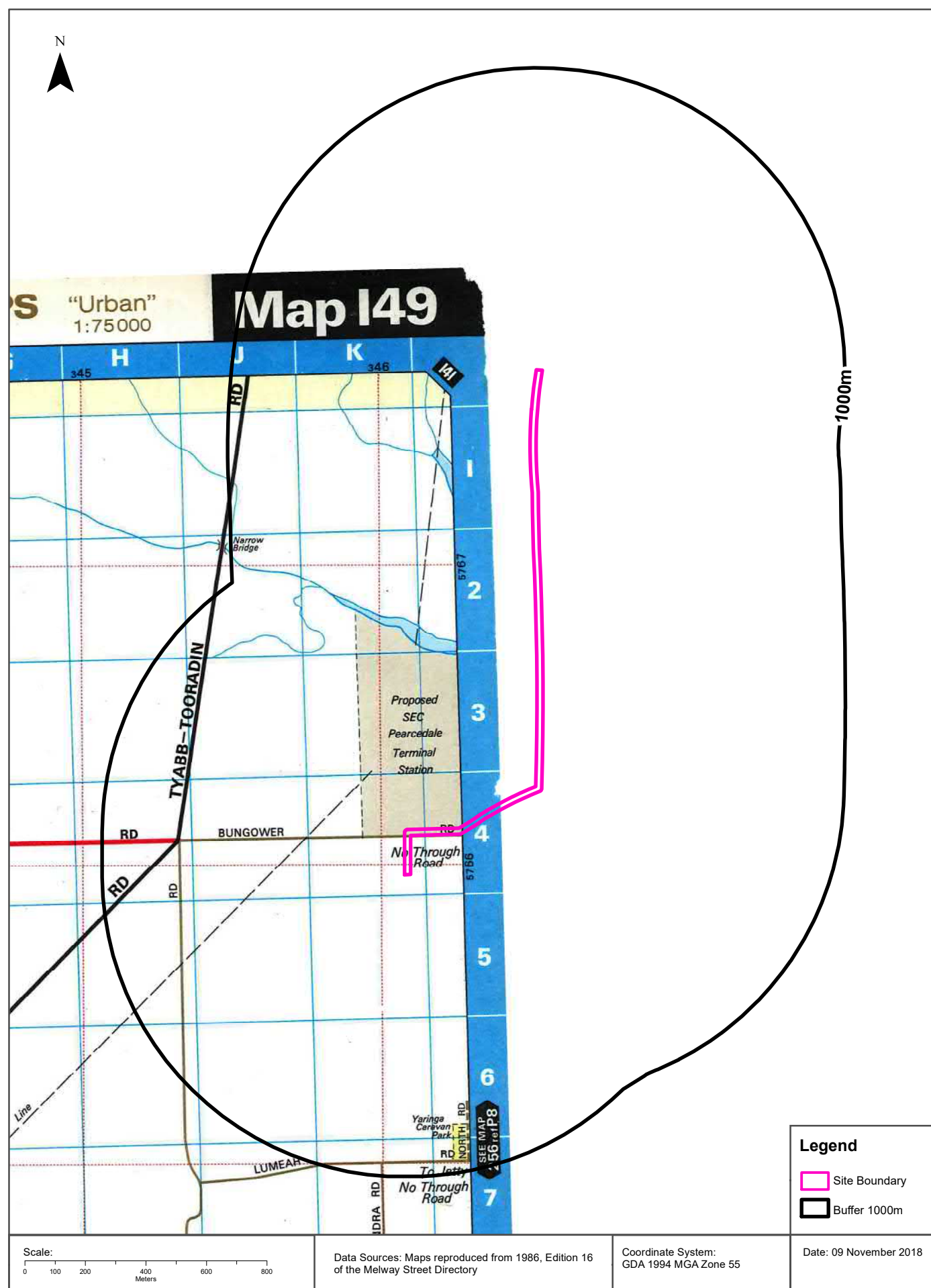


Historical Map 1998

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



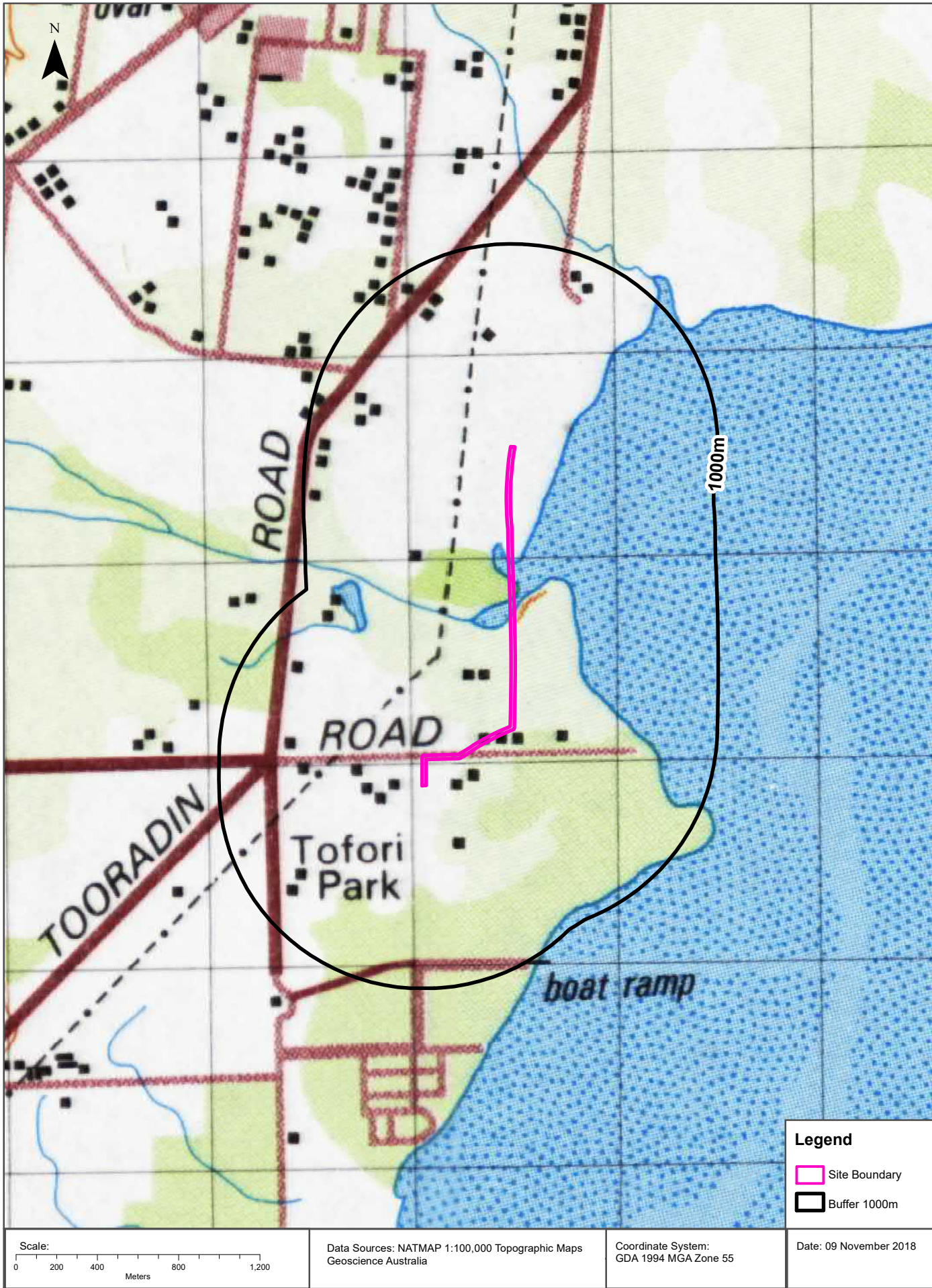
**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)**





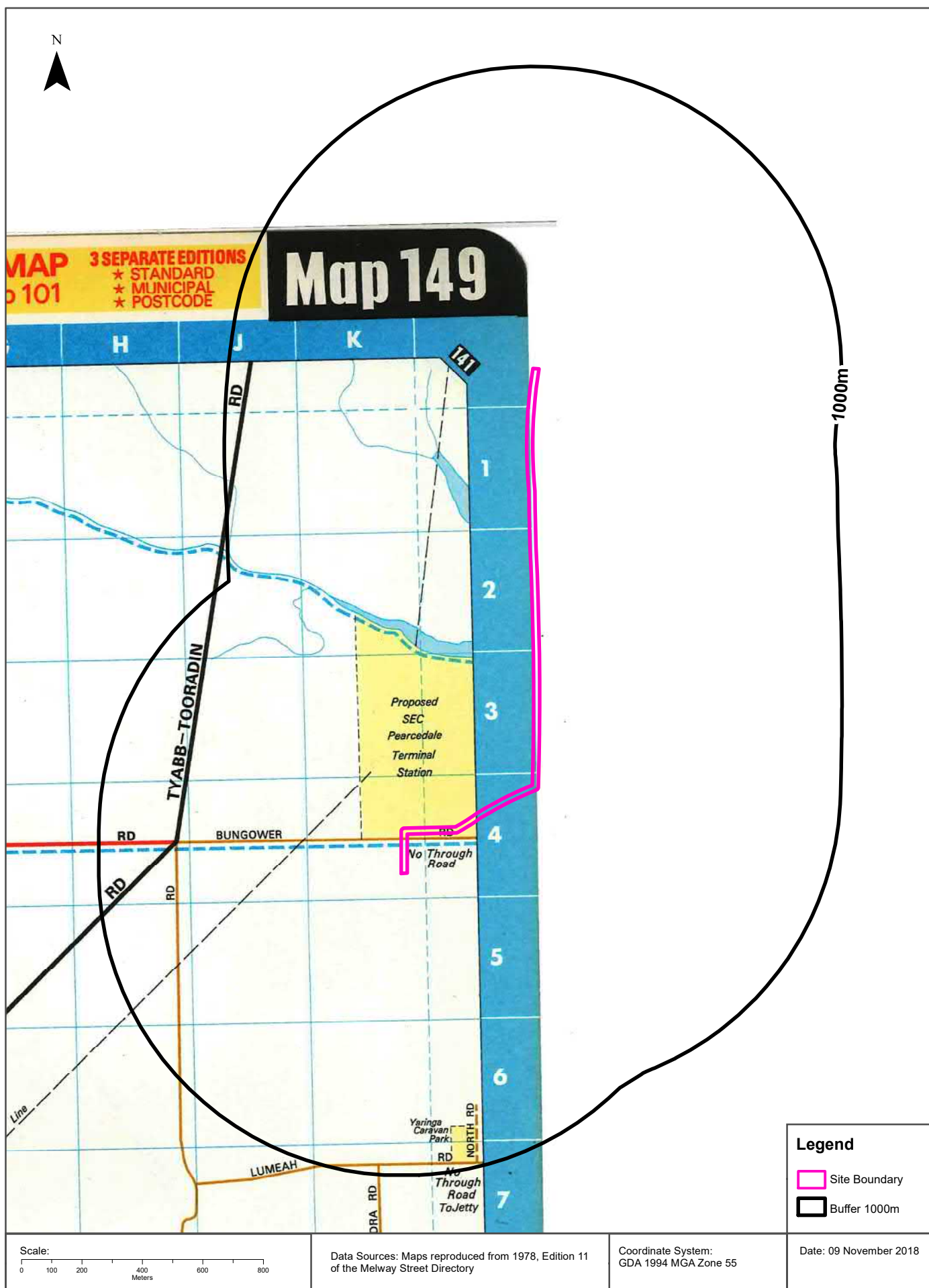
Historical Map 1979

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



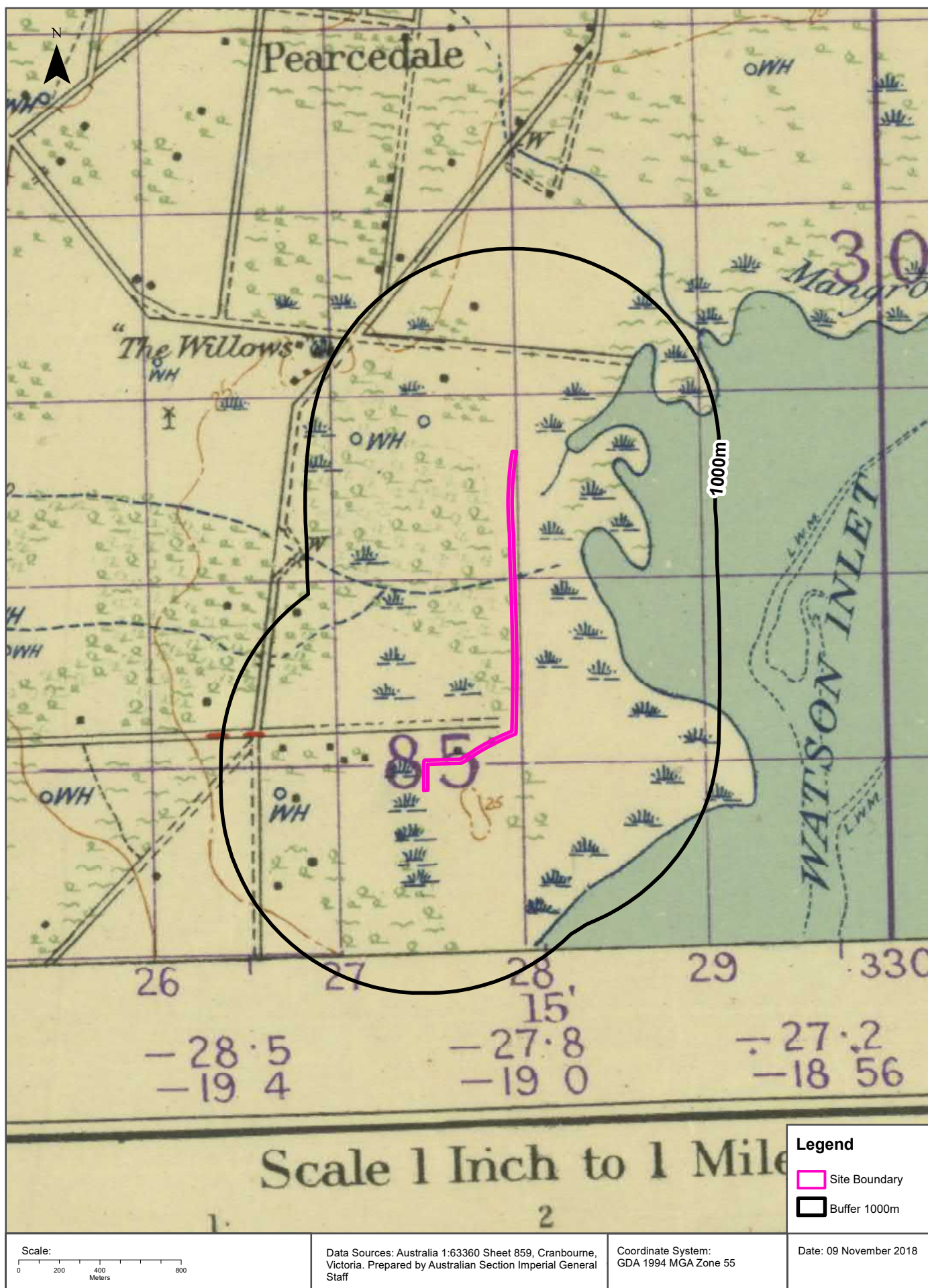


**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)**



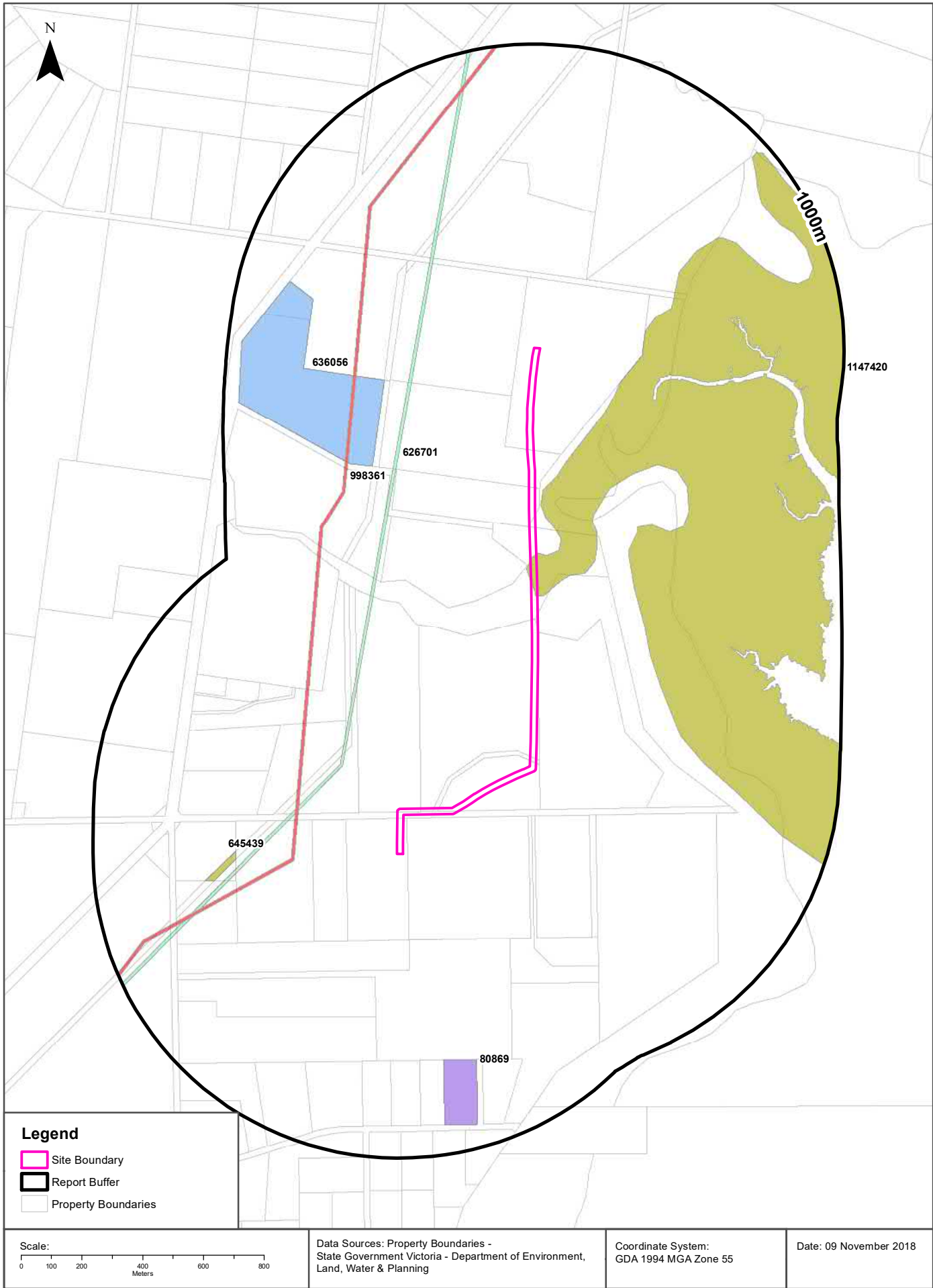
# Historical Map 1938

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



# Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





## Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Features of Interest

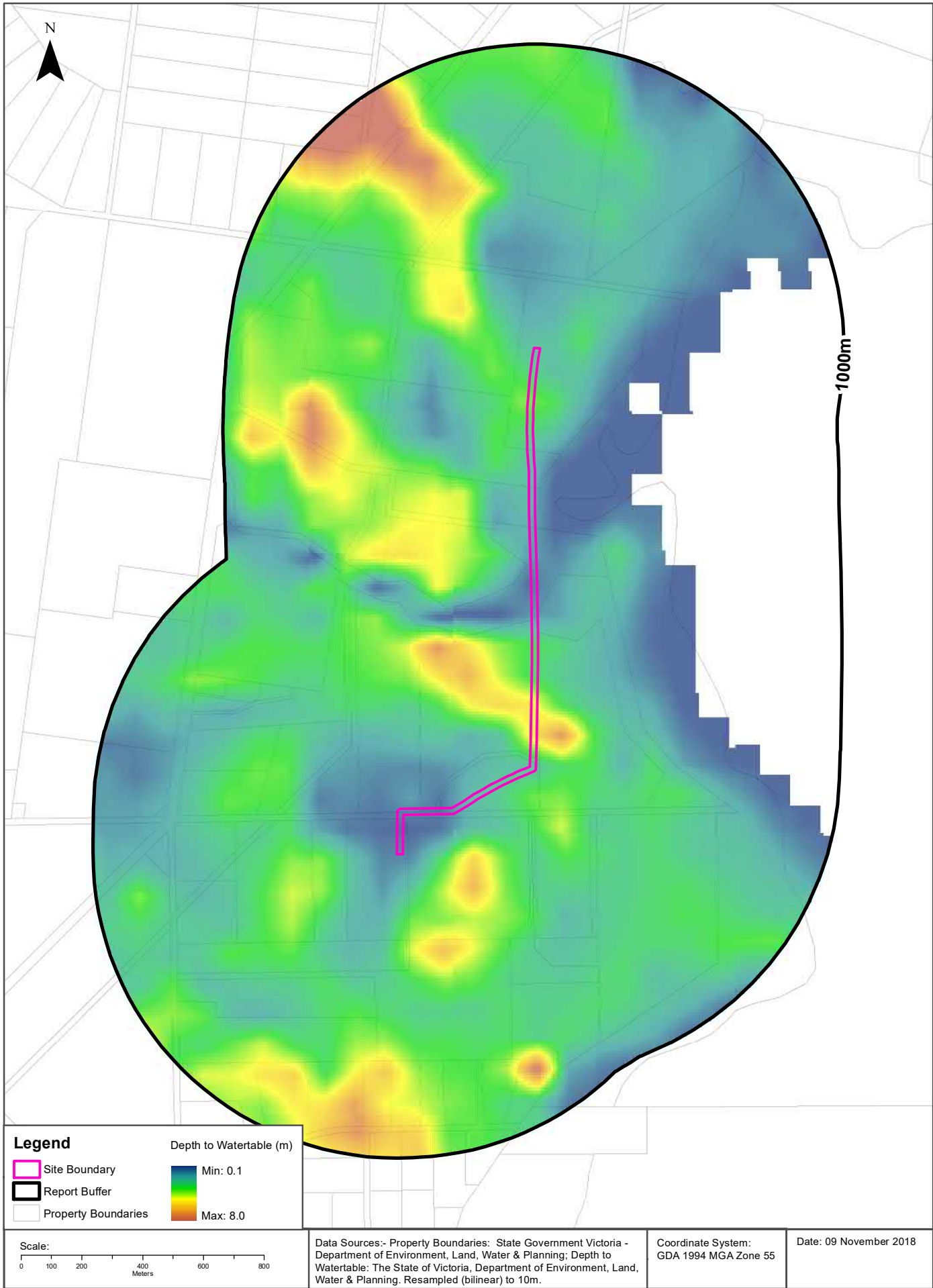
Features of Interest within the dataset buffer:

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
1147420	reserve	national park	Yaringa Marine National Park	0m	Onsite
626701	power line	power transmission	Cranbourne-Tyabb	234m	North
998361	pipeline	oil pipeline	Dutson To Hastings	326m	East
636056	sport facility	golf course	Bembridge 9 Hole Golf Course	476m	North West
645439	reserve	park		531m	South West
80869	community space	caravan park	Western Port Harbour Caravan Park	692m	South

Features of Interest Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Depth to Watertable

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





# Hydrogeology & Groundwater

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	Onsite

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

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## Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	100

## Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
Less than 5 metres	100

## Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
1 AHDm to 6 AHDm

## Basement Elevation

Approximate on-site Basement Elevation:

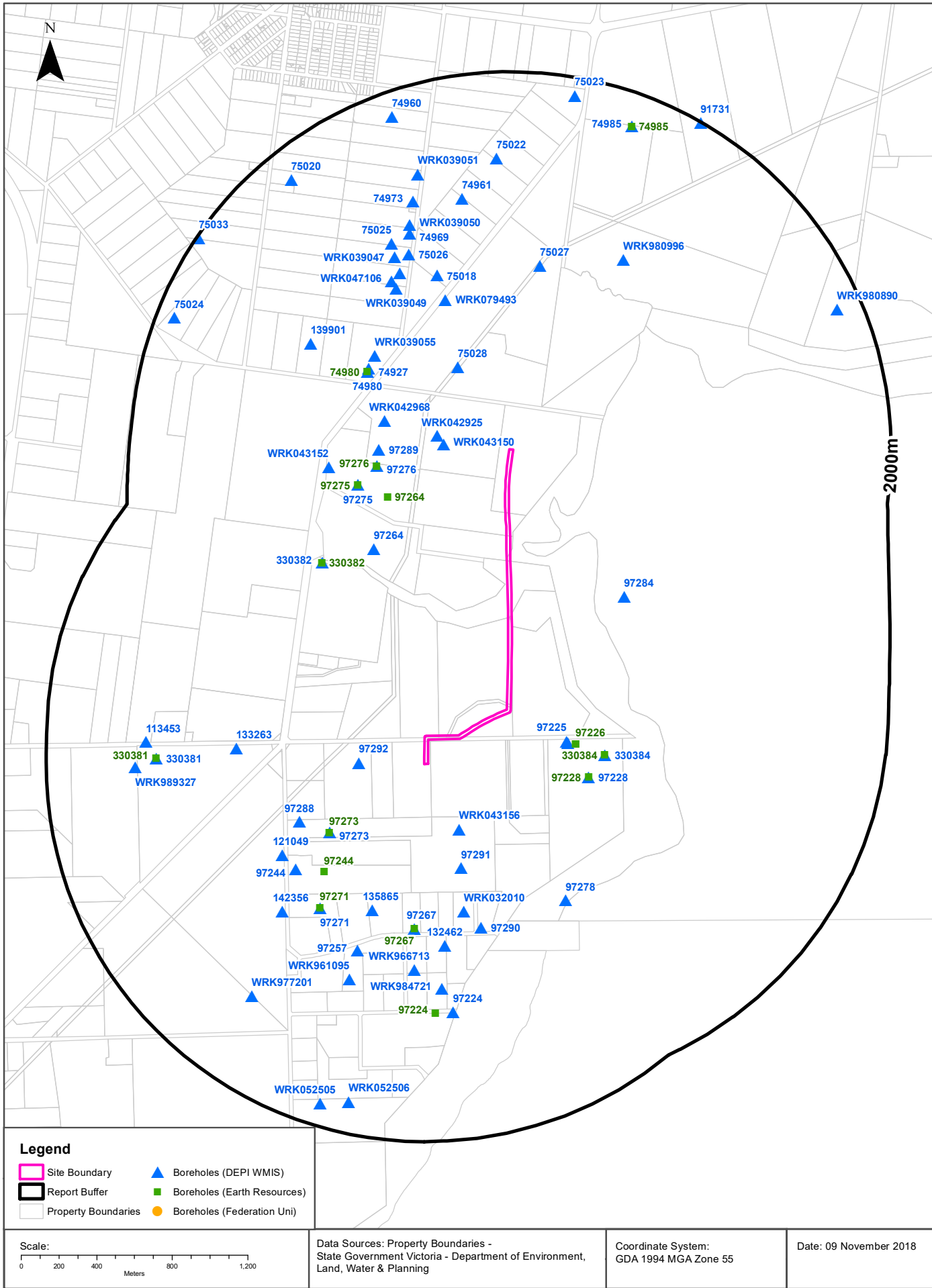
Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
-85 AHDm to -67 AHDm

Groundwater Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



# Groundwater Boreholes

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Boreholes (DEPI WMIS)

Boreholes from the Department of Environment and Primary Industries' Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97225	Observation, State Observation Network		0.00m-62.00m INNER LINING - CASING = Not Known 62.00m-64.00m INNER LINING - SCREEN = Not Known	Date/time: 2016-04-27 1230 Quality: 43 WLMP: 3.71m DBNS: 3.62m RWL: -0.24mAH		1978-08-14	336	South East
97226	Observation, State Observation Network		0.00m-16.00m INNER LINING - CASING = Not Known 16.00m-22.00m INNER LINING - SCREEN = Not Known	Date/time: 2018-08-01 1005 Quality: 43 WLMP: 3.31m DBNS: 3.17m RWL: 0.26mAH	16.00m-22.00m Gravel	1978-09-25	344	South East
97292	Domestic, Stock					1988-01-01	345	South West
WRK043150	Domestic, Irrigation, Stock					1970-12-31	348	North
WRK043156	Domestic, Irrigation, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m TOP FILLING 0.90m-7.00m CLAY 7.00m-13.70m SANDY GREEN CLAY 13.70m-21.30m MARINE CLAY & SHELL 21.30m-38.10m LIGHT MARINE CLAY 38.10m-38.90m DARK MARINE SOFT ROACK & SHELL 38.90m-45.40m LAYERS OF HARD SANDSTONE Limestone & SHELL	0.00m-38.90m INNER LINING - CASING = Steel 38.90m-45.70m INNER LINING - SCREEN = Steel			1977-12-12	383	South
WRK042925	Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m RED CLAY 0.60m-0.90m SUBSOIL & IRONSTONE 0.90m-1.20m RED CLAY 1.20m-3.60m SANDY RED & GREY CLAY 3.60m-10.60m CLAYEY MEDIUM SAND 10.60m-14.30m BLACK CLAYEY SILT 14.30m-17.40m BLACK CLAYEY SILT AND MEDIUM SAND 17.40m-17.60m SANDSTONE 17.60m-18.20m MARINE SILT & SANDSTONE 18.20m-21.90m MARINE CLAYEY SILT & SAND 21.90m-29.30m MARINE SILT & SHELL 29.30m-48.70m MARINE SILT, SHELL & THIN LAYERS SANDSTONE 48.70m-54.20m LIMESTONE & CORAL 54.20m-54.80m BASALT	-0.01m-48.70m INNER LINING - CASING = Steel 0.00m-11.00m INNER LINING - CASING = Pvc 48.70m-54.80m INNER LINING - SCREEN = Pvc 9.00m-11.00m OUTER LINING - GRAVEL = Cement			1991-11-23	388	North
75028	Stock					1988-01-01	513	North
97228	Not Known		0.00m-56.00m INNER LINING - CASING = Not Known 56.00m-58.00m INNER LINING - SCREEN = Not Known			1978-10-31	538	South East
330384	Non Groundwater					1919-12-31	549	South East
97291	Stock					1988-01-01	578	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97284	Domestic	0.00m-0.60m SURFACE SOIL 0.60m-2.00m BROWN SAND 2.00m-4.50m GREY AND BROWN SANDY CLAY 4.50m-11.60m BROWN CLAY AND IRONSTONE 11.60m-19.80m MARINE SILT AND CLAY 19.80m-41.50m MARINE SILT 41.50m-43.20m MARINE SILT AND SHELL 43.20m-44.80m LIMESTONE 44.80m-47.50m CORAL 47.50m-49.00m CORAL AND SAND 49.00m-49.30m BROWN COAL 49.30m-50.20m GREY MUDSTONE	43.00m-43.00m INNER LINING - CASING = Pvc 43.00m-49.00m INNER LINING - SCREEN = Not Known		43.00m-49.00m Limestone	1988-10-13	596	East
97273	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SAND 0.60m-0.90m COFFEE ROCK 0.90m-6.10m RED & GREY SANDY CLAY 6.10m-11.60m GREEN & BROWN SANDY CLAY 11.60m-40.50m MARINE SILT 40.50m-42.10m GREEN SANDY CLAY 42.10m-46.30m LIMESTONE & COAL 46.30m-46.90m LIMESTONE & COARSE SAND	0.00m-42.10m INNER LINING - CASING = Steel 42.10m-46.90m INNER LINING - SCREEN = Steel		42.10m-46.90m Limestone	1986-01-02	618	South West
WRK042968	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-1.20m SAND 1.20m-8.00m SANDY CLAY 8.00m-12.00m DARK SILTY CLAY 12.00m-27.00m MARL 27.00m-29.70m SOFT MARINE SEDIMENT 29.70m-51.30m MARL 51.30m-52.00m LIMESTONE 52.00m-53.00m LIMESTONE & CORAL 53.00m-58.00m Snd 58.00m-58.50m COAL AND SILT	0.30m-51.50m INNER LINING - CASING = Galvanised Iron 51.50m-58.00m INNER LINING - SCREEN = Galvanised Iron 51.00m-0.00m OUTER LINING - GRAVEL = Seal			1997-10-01	677	North West
97289	Stock					1988-01-01	683	North West
97276	Domestic	0.00m-0.60m SURFACE SOIL 0.60m-3.00m BROWN SAND 3.00m-7.90m GREY & BROWN SANDY CLAY 7.90m-8.50m GREY CLAY 8.50m-9.10m BROWN CLAY & IRONSTONE 9.10m-23.70m MARINE SILT CLAY & SHELL 23.70m-57.30m MARINE SILT & SHELL 57.30m-63.40m CORAL 63.40m-64.00m CORAL & SAND	0.00m-57.30m INNER LINING - CASING = Not Known 57.30m-64.00m INNER LINING - SCREEN = Not Known		57.30m-64.00m Limestone	1988-01-10	685	North West
97264	Domestic, Stock	0.00m-1.40m SANDY LOAM 1.40m-1.70m COFFEE ROCK 1.70m-7.00m HARD YELLOW CLAY 7.00m-9.20m LIGHT GREY CLAY 9.20m-16.00m WEATHERED CLAY 16.00m-19.15m SHELL AND WEATHERED ROCK	0.00m-16.00m INNER LINING - CASING = Galvanised Iron 16.00m-19.15m INNER LINING - SCREEN = Galvanised Iron		16.00m-19.15m Marl	1984-01-17	699	North West
97288	Domestic, Stock					1988-01-01	726	South West
97275	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-1.80m GREY SAND 1.80m-8.80m GREY & BROWN CLAY 8.80m-9.10m GREY CLAY 9.10m-10.70m SLOPPY SANDY GREY CLAY 10.70m-11.60m GREY CLAY 11.60m-12.50m MARINE SILT 12.50m-14.90m BROKEN MARINE ROCK 14.90m-15.20m STICKY MARINE CLAY	0.00m-12.50m INNER LINING - CASING = Galvanised Iron 12.50m-14.90m INNER LINING - SCREEN = Galvanised Iron		12.50m-14.90m Marl	1987-11-06	779	North West
WRK032010	Commercial	0.00m-0.60m SURFACE SOIL 0.60m-0.80m COFFEE ROCK 0.80m-1.50m SAND 1.50m-3.00m GREY & BROWN SANDY CLAY 3.00m-5.40m MOTTLEY SANDY CLAY 5.40m-9.70m MEDIUM FINE SAND & CLAY 9.70m-13.10m DARK MARINE CLAYEY SILT WITH THIN SANDSTONE LAYERS 13.10m-35.00m MARINE CLAYEY SILT 35.00m-35.60m SOFT DARK MARINE SANDSTONE & SHELL 35.60m-36.20m LIMESTONE 36.20m-41.40m LIMESTONE & MEDIUM SAND 41.40m-42.00m GREY CLAY	-0.20m-36.80m INNER LINING - CASING = Pvc 36.80m-41.20m INNER LINING - SCREEN = Pvc			1992-12-17	804	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
135865	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-2.50m CLAY 2.50m-8.00m SANDY CLAY 8.00m-10.60m BROWN CLAY 10.60m-13.00m CLAY, COARSE SAND 13.00m-15.80m MARINE CLAY & LAYERS OF IRONSTONE 15.80m-41.00m MARLE 41.00m-43.00m DARK GREEN MARLE AND SHELL 43.00m-43.30m LIMESTINE 43.30m-48.00m CORAL	-4.20m-43.00m INNER LINING - CASING = Pvc 43.00m-48.00m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement 43.00m-0.00m OUTER LINING - GRAVEL = Seal		43.00m-48.00m Limestone	1998-09-02	822	South West
74980	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-1.20m SAND AND IRONSTONE PIECES 1.20m-4.90m CLAYEY YELLOW SAND 4.90m-8.20m SANDY YELLOW CLAY 8.20m-12.80m SLOPPEY GREY SANDY CLAY 12.80m-16.50m STICKY MARINE SANDY CLAY 16.50m-43.30m MARINE SILT 43.30m-43.90m SOFT MARINE LIMESTONE AND SHELL 43.90m-50.30m HARD SANDSTONE AND LIMESTONE WITH LAYERS OF SHELLY CORAL	0.00m-43.60m INNER LINING - CASING = Galvanised Iron 43.60m-50.30m INNER LINING - SCREEN = Galvanised Iron		43.60m-50.30m Limestone	1979-11-14	856	North West
74927	Domestic, Domestic & Stock, Stock					1970-12-31	859	North West
WRK079493	Irrigation	0.00m-0.30m SOIL 0.30m-12.00m CLAY 12.00m-57.50m WESTERN PORT GROUP 57.50m-60.00m BASEMENT	0.00m-49.00m INNER LINING - CASING = Pvc 49.00m-60.00m INNER LINING - SCREEN = Stainless Steel 8.00m-49.00m OUTER LINING - GRAVEL = Cement			2014-06-03	862	North
WRK039055	Domestic, Irrigation, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m CLAY AND IRONSTONE 0.60m-2.40m RED CLAY 2.40m-3.40m SANDY CLAY 3.40m-10.40m CLAYEY SAND AND RED CLAY 10.40m-12.10m SANDY MOTTLEY CLAY AND IRONSTONE 12.10m-14.60m DARK MARINE CLAY AND COARSE SAND 14.60m-16.70m DARK MARINE SILTY CLAY 16.70m-18.90m MARINE SILTY CLAY AND SAND 18.90m-26.80m MARINE SILT ROCK AND SHELL 26.80m-43.20m MARINE SILT AND SHELL 43.20m-46.00m GREEN AND GREY SILT AND SHELL 46.00m-57.80m CORAL	0.00m-46.00m INNER LINING - CASING = Mild Steel 46.00m-55.00m INNER LINING - SCREEN = Mild Steel		46.00m-55.00m Limestone	1989-10-30	867	North West
97267	Domestic		0.00m-42.10m INNER LINING - CASING = Mild Steel 42.10m-49.10m INNER LINING - SCREEN = Mild Steel			1985-02-05	873	South
97244	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.91m GREY SAND 0.91m-3.35m CLAY 3.35m-3.96m SANDY CLAY 3.96m-10.36m SLOPPY CLOGGY SAND 10.36m-12.50m STICKY MARINE SANDY CLAY 12.50m-32.00m BROKEN SANDSTONE PIECES MARINE CLAY SHELL 32.00m-37.20m MARINE CLAY SILT AND LITTLE SHELL 37.20m-38.10m CONSOLIDATED MARINE CLAY SILT AND SHELL 38.10m-39.32m DARK MARINE CLAY SHELL 39.32m-42.10m SOFT LIMESTONE SHELL 42.10m-43.60m HARD SHELLY LIMESTONE 43.60m-43.90m SOFT LAYERS OF BROKEN LIMESTONE AND SHELL	0.00m-39.62m INNER LINING - CASING = Not Known 39.62m-43.89m INNER LINING - SCREEN = Not Known			1970-10-25	877	South West



Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
121049	Irrigation	0.00m-0.20m SURFACE SOIL 0.20m-2.00m BROWN CLAY 2.00m-3.40m SANDY GREY & BROWN CLAY 3.40m-6.00m FINE SANDY GREY CLAY 6.00m-8.50m GREY CLAY & COARSE SAND 8.50m-15.80m GREY & BROWN FINE SANDY CLAY 15.80m-18.20m BROWN SILT THIN LAYERS OF SANDSTONE 18.20m-40.00m MARINE & BROWN SILT 40.00m-43.20m DARK MARINE SILT & SHELL 43.20m-43.80m LIMESTONE 43.80m-46.90m LAYERS OF LIMESTONE CORAL & SHELLS 46.90m-47.50m COARSE SAND 47.50m-47.80m BROWN SAND	-0.10m-43.20m INNER LINING - CASING = Steel 43.20m-47.50m INNER LINING - SCREEN = Steel 0.00m-0.00m OUTER LINING - GRAVEL = Seal		43.20m-47.50m Limestone	1993-11-27	892	South West
97290	Domestic					1988-01-01	911	South
WRK043152	Irrigation					1970-12-31	938	North West
97271	Domestic, Stock	0.00m-0.50m SURFACE SOIL 0.50m-0.90m SAND 0.90m-14.50m SANDY GREY & BROWN CLAY DARK GREY SANDY CLAY DARK GREEN CLAY 14.50m-40.50m LIGHT MARINE SILT 40.50m-41.10m DARK MARINE SILT & SHELL 41.10m-47.80m SANDSTONE. LIMESTONE & SHELL 47.80m-48.00m COARSE SAND 48.00m-48.50m BROWN CORAL	0.00m-42.90m INNER LINING - CASING = Galvanised Iron 42.90m-48.20m INNER LINING - SCREEN = Galvanised Iron		42.90m-48.20m Sandstone	1983-02-06	940	South West
132462	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-2.40m CLAY 2.40m-7.30m SANDY CLAY 7.30m-9.00m BROWN CLAY 9.00m-11.00m BROWN CLAY & COURSE SAND 11.00m-11.50m MARINE CLAY & COURSE SAND 11.50m-15.20m MARINE CLAY & LAYERS OF IRONSTONE 15.20m-15.50m IRONSTONE 15.50m-40.00m MARLE 40.00m-42.30m DARK GREEN MARLE & SHELLS 42.30m-42.60m LIMESTONE 42.60m-46.00m CORAL 46.00m-47.00m MEDIUM SAND	-0.20m-42.50m INNER LINING - CASING = Pvc 42.50m-47.00m INNER LINING - SCREEN = Pvc 42.20m-0.00m OUTER LINING - GRAVEL = Seal		42.50m-47.00m Limestone	1997-03-26	966	South
330382	Non Groundwater					1919-12-31	975	West
75027	Stock					1988-01-01	983	North
133263	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-1.50m CLAY 1.50m-3.00m WHITE & ORANGE CLAY & SAND 3.00m-8.00m FINE SANDY GREY CLAY 8.00m-10.50m YELLOW FINE SANDY CLAY 10.50m-12.00m DARK GREY CLAY WITH C/SAND 12.00m-14.60m DARK MARINE CLAYEY SILT 14.60m-23.50m MARLE THIN LENSES ROCK 23.50m-36.00m MARLE 36.00m-38.50m DARK GREEN CLAYEY SILT 38.50m-38.80m CAP ROCK 38.80m-39.50m LIMESTONE 39.50m-43.70m CORAL 43.70m-44.00m COARSE SAND 44.00m-45.00m BROWN COAL	0.20m-38.50m INNER LINING - CASING = Pvc 38.50m-45.00m INNER LINING - SCREEN = Pvc 0.00m-0.00m OUTER LINING - GRAVEL = Seal		38.50m-45.00m Sand	1998-03-13	995	South West
75018	Domestic					1988-01-01	997	North

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
97278	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-1.80m GREY SAND 1.80m-8.80m GREY & BROWN CLAY 8.80m-9.10m GREY CLAY 9.10m-10.70m BROWN SILT 10.70m-12.50m BROWN SILT & IRONSTONE 12.50m-32.00m MARINE SILT 32.00m-39.00m MARINE SILT & SHELL 39.00m-40.00m LIMESTONE 40.00m-46.80m CORAL 46.80m-47.00m CORAL & COARSE SAND 47.00m-47.30m BROWN COAL	0.00m-40.00m INNER LINING - CASING = Pvc 40.00m-47.00m INNER LINING - SCREEN = Pvc 39.00m-0.00m OUTER LINING - GRAVEL = Seal		40.00m-47.00m Limestone	1987-10-15	1020	South
WRK039049	Irrigation	0.00m-0.61m SUB SOIL SANDY LOAM 0.61m-4.27m YELLOW CLAY 4.27m-7.32m SANDY CLAYS 7.32m-8.23m RED SAND (WATER) 8.23m-12.19m YELLOW SAND STONE 12.19m-26.21m SEA SLIME BLACK AND MILK STONES 26.21m-40.54m SEA SLIME GREY AND SHEDDED GRAVEL 40.54m-47.50m CORAL AND SEA SHELL	0.00m-47.50m INNER LINING - CASESCRN = Not Known			1971-10-16	1040	North
97257	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-10.40m SANDY CLAY GREY AND BROWN 10.40m-12.50m DARK GREY SANDY CLAY 12.50m-14.90m DARK GREEN CLAY 14.90m-40.50m LIGHT MARINE SILT 40.50m-41.10m DARK MARINE SILT AND SHELL 41.10m-47.80m SANDSTONE LIMESTONE AND SHELL 47.80m-48.00m COARSE SAND 48.00m-48.50m BROWN COAL	0.00m-42.10m INNER LINING - CASING = Pvc 42.10m-48.50m INNER LINING - SCREEN = Pvc		42.10m-48.50m Sand	1980-11-08	1049	South West
142356	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-1.80m BROWN CLAY 1.80m-3.50m SANDY GREY & BROWN CLAY 3.50m-6.00m FINE SANDY GREY CLAY 6.00m-8.20m GREY CLAY & COARSE SAND 8.20m-17.00m BROWN SILT THIN SANDSTONE LAYERS 17.00m-37.50m MARINE SILT LAYERS 37.50m-38.80m DARK MARINE SILT & SHELL 38.80m-39.00m LIMESTONE 39.00m-42.00m SOFT LIMESTONE 42.00m-42.30m COARSE SNAD 42.30m-42.60m BROWN COAL	0.00m-42.60m OUTER LINING - GRAVEL = Cement			1998-10-23	1084	South West
WRK047106		0.00m-2.00m TOPSOIL 2.00m-8.00m COFFE ROCK 8.00m-16.00m RED CLAY 16.00m-33.00m GREY CLAY 33.00m-53.00m MEDIUM MUDSTONE 53.00m-54.00m HARD MUD STONE	0.00m-36.00m INNER LINING - CASING = Pvc 36.00m-54.00m INNER LINING - SCREEN = Pvc 0.00m-33.00m OUTER LINING - GRAVEL = Seal			2008-06-14	1086	North
WRK966713							1091	South
WRK039048	Irrigation	0.30m-0.91m SANDY LOAM 0.91m-7.01m SANDY CLAYS 7.01m-8.23m RED SAND STONE 8.23m-10.36m YELLOW SANDSTONE 10.36m-12.19m COURSE SAND 12.19m-35.66m SEA SLIME 35.66m-41.76m SEA SLIME SHELLY 41.76m-53.90m CORAL	0.00m-53.90m INNER LINING - CASESCRN = Not Known			1970-12-07	1098	North
WRK980996							1161	North
75026	Domestic					1988-01-01	1161	North

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK039047	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-0.91m CLAY 0.91m-6.40m RED SANDY CLAY 6.40m-11.28m SLOPPY RED SANDY CLAY 11.28m-11.89m YELLOW SAND WITH SANDSTONE PIECES 11.89m-12.80m IGNITE AND CLAY 12.80m-16.46m BLACK CLAY 16.46m-18.90m STICKY MARINE CLAY WITH SAND 18.90m-22.86m MARINE CLAY SILT LITTLE SHELL WITH ROCK PIECES 22.86m-38.10m MARINE SILT LITTLE SHELL 38.10m-39.62m DARK MARINE SILT AND SHELL 39.62m-40.54m LIMESTONE SHELL 40.54m-42.67m CORALY SHELL 42.67m-42.98m BROWN COAL 42.98m-46.33m HARD SANDSTONE 46.33m-51.82m LAYERS OF ROCK AND SHELL LITTLE SAND 51.82m-52.10m LITTLE SAND AND SHELL MUDSTONE	0.00m-39.62m INNER LINING - CASING = Not Known 39.62m-52.12m INNER LINING - SCREEN = Not Known			1970-12-07	1185	North
139901	Domestic	0.00m-0.30m TOP SOIL 0.30m-19.00m CLAY 19.00m-43.00m MARL & SANDS 43.00m-43.30m CAP ROCK 43.30m-48.00m LIMESTONE & SAND	0.00m-43.00m INNER LINING - CASING = Pvc 43.00m-48.00m INNER LINING - SCREEN = Pvc			1999-02-11	1191	North West
WRK984721	Domestic & Stock	0.50m-1.20m GREY SAND 1.20m-5.00m GREY & ORANGE CLAY 5.00m-8.00m GREY CLAY 8.00m-14.50m SILTY CLAY 14.50m-18.00m LIMESTONE 18.00m-19.00m LIMESTONE/SANDY CLAY 19.00m-42.00m SILT & CLAY 42.00m-43.00m CLAY & SHELLS 43.00m-44.50m SAND LIMESTONE & SHELLS	1.00m-7.00m OUTER LINING - GRAVEL = Cement		41.50m-44.50m Limestone	2008-07-16	1193	South
WRK961095							1204	South
75025	Domestic					1988-01-01	1256	North
74969	Commercial, Domestic, Irrigation, Stock	40.84m-48.40m CORAL AND SMALL SHELLS AND SAND	0.00m-41.65m INNER LINING - CASING = Not Known 42.98m-50.59m INNER LINING - SCREEN = Not Known 41.45m-0.00m OUTER LINING - GRAVEL = Seal		42.98m-50.59m Limestone	1978-04-10	1258	North
WRK039050	Commercial, Domestic, Irrigation, Stock	0.00m-0.61m DARK LOAM SOIL 0.61m-1.52m GREY BROWN SANDS 1.52m-3.66m REDDISH AND GREY CLAY 3.66m-7.62m GREY REDDISH AND SANDY CLAY 7.62m-12.80m REDDISH SAND 12.80m-18.90m DARD FINE SAND BASALT 18.90m-22.86m DARK FINE SANDY CLAY 22.86m-29.87m PASTY GREENY GREY CLAY STONES 29.87m-38.10m SHELLY CLAY 38.10m-50.59m FUCKING CRAP	0.00m-40.89m INNER LINING - CASING = Not Known 40.23m-50.59m INNER LINING - SCREEN = Not Known 39.62m-0.00m OUTER LINING - GRAVEL = Seal			1974-08-22	1301	North
97224	Observation, State Observation Network			Date/time: 2009-05-06 1537 Quality: 43 WLMP: 5.54m DBNS: 4.54m RWL: -1.25mAHD		1978-07-25	1321	South
74961	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SUB SOIL 0.90m-2.70m CLAY 2.70m-5.20m FINE SANDY SLOPPY CLAY 5.20m-11.00m SLOPPY FINE CLAYEY SAND 11.00m-13.40m COARSE SANDY BLACK CLAY 13.40m-29.50m MARINE CLAY AND SHELL 29.50m-30.10m HARD SANDSTONE 30.10m-38.70m SANDSTONE WITH LAYERS OF SHELL	0.00m-30.20m INNER LINING - CASING = Galvanised Iron			1976-06-09	1350	North

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
74973	Domestic, Stock	0.00m-0.50m TOP SOIL 0.50m-3.00m WHITE FINE SAND 3.00m-14.00m VOLCANIC CLAY 14.00m-18.00m DARK GREY CLAY 18.00m-25.00m BROWN COAL AND WOOD 25.00m-28.80m SOFT MUDSTONE	0.00m-18.00m INNER LINING - CASING = Pvc 18.00m-28.80m INNER LINING - SCREEN = Pvc		18.00m-28.80m Coal	1979-06-26	1408	North
330381	Non Groundwater					1919-12-31	1418	West
113453	Stock	0.00m-0.30m SURFACE SOIL 0.30m-1.80m BROWN CLAY 1.80m-3.60m SANDY GREY & BROWN CLAY 3.60m-4.80m FINE SANDY GREY CLAY 4.80m-5.50m FINE SANDY GREY CLAY & IRONSTONE 5.50m-7.00m GREY CLAY & COARSE SAND 7.00m-14.30m GREY & BROWN FINE SANDY CLAY 14.30m-16.70m BROWN SILT & SANDSTONE 16.70m-21.30m MARINE & BROWN SILT WITH THIN LAYERS SANDSTONE 21.30m-31.00m MARINE SILT 31.00m-31.60m LIMESTONE 31.60m-34.70m LIMESTONE & CORAL 34.70m-35.00m SAND COARSE 35.00m-35.60m BROWN COAL	-0.30m-31.00m INNER LINING - CASING = Pvc 31.00m-35.60m INNER LINING - SCREEN = Pvc 30.00m-31.00m OUTER LINING - GRAVEL = Cement		31.00m-35.60m Limestone	1993-03-18	1472	West
WRK989327							1529	West
WRK977201							1530	South West
WRK039051	Irrigation	0.00m-0.61m SAND LOAM 0.61m-34.29m FATTY SAND 34.29m-41.14m CORAL THICK HEAVY AND HARD	0.00m-34.90m INNER LINING - CASING = Steel 34.44m-41.14m INNER LINING - SCREEN = Steel			1975-03-25	1535	North
75022	Stock					1988-01-01	1542	North
74985	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-3.70m SAND 3.70m-8.20m MARINE AND GREY SANDY CLAY 8.20m-10.40m GREY AND BROWN SANDY CLAY 10.40m-13.10m GREY AND BROWN CLAY 13.10m-14.60m BROWN COARSE SANDY CLAY 14.60m-17.10m SLOPPY BROWN COARSE CLAYEY SAND 17.10m-19.20m MARINE SILT SAND AND SHELL 19.20m-23.50m DARK MARINE SILT 23.50m-28.30m LIGHT MARINE SILT 28.30m-30.80m LIGHT MARINE BASALTIC CLAY 30.80m-32.30m BASALT	0.00m-30.80m INNER LINING - CASING = Galvanised Iron 30.80m-32.30m INNER LINING - SCREEN = Galvanised Iron 29.90m-0.00m OUTER LINING - GRAVEL = Seal		30.80m-32.30m Basalt	1982-12-06	1823	North
WRK052506	Irrigation	0.00m-0.30m TOP SOIL 0.30m-44.30m CLAY 44.30m-49.00m STONE	0.00m-44.50m INNER LINING - CASING = Pvc 0.00m-44.50m OUTER LINING - GRAVEL = Cement 44.50m-49.00m OUTER LINING - GRAVEL = Seal			2008-07-07	1831	South
75020	Stock					1988-01-01	1834	North West
74960	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-4.60m SANDY CLAY 4.60m-12.20m FINE SANDY CLAY 12.20m-13.10m GREY CLAY 13.10m-16.10m MARINE CLAY WITH COARSE SAND 16.10m-20.10m MARINE SILT AND SHELL WITH PIECES HARD SANDSTONE 20.10m-20.70m LIMESTONE 20.70m-21.90m CLAYEY LIMESTONE AND SHELL 21.90m-23.50m MARINE CLAY AND SHELL 23.50m-27.40m LIGNITE				1976-03-26	1866	North
WRK980890							1868	North East
WRK052505	Irrigation	0.00m-0.30m TOP SOIL 0.30m-44.00m CLAY 44.00m-48.00m STONE	0.00m-44.00m INNER LINING - CASING = Pvc 1.00m-44.00m OUTER LINING - GRAVEL = Cement 44.00m-48.00m OUTER LINING - GRAVEL = Packer			2008-07-04	1879	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
75023	Domestic, Stock					1988-01-01	1902	North
75024	Domestic					1988-01-01	1904	North West
75033	Domestic					1988-01-01	1987	North West
91731	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-6.40m CLAY 6.40m-7.00m FINE SLOPPY SANDY CLAY 7.00m-16.40m MARINE COARSE SAND 16.40m-20.10m MARINE SAND AND CLAY 20.10m-21.30m BROKEN SANDSTONE AND MARINE CORAL 21.30m-32.30m FINE SAND AND MARINE SILT 32.30m-33.50m DARK GREEN SILT AND SHELL 33.50m-35.90m BASALT	0.00m-33.80m INNER LINING - CASING = Galvanised Iron 33.80m-35.90m INNER LINING - SCREEN = Galvanised Iron		33.80m-35.90m Basalt	1982-12-17	1995	North

Boreholes WMIS Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Direct
97225		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		14/08/1978	64.30	3.38	300	383	South East
97226		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		25/09/1978	58.00	3.43	300	383	South East
97228		Department of Manufacturing & Industry Development		Percussion (cable)	Abandoned	31/10/1978	74.00		300	536	South East
330384		Department of Manufacturing & Industry Development				31/12/1919	80.16		300	548	South East
97273		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		02/01/1985	46.90		100	619	South West
97264		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		17/01/1984	19.15		100	620	North West
97276		Private Individual/Corporation	Domestic water supply	Percussion (cable)		10/01/1988	64.00		100	687	North West
97244		Private Individual/Corporation	Domestic water supply	Percussion (cable)		25/10/1970	43.89		300	777	South West
97275		Private Individual/Corporation	Domestic water supply	Percussion (cable)		06/11/1987	15.20		100	781	North West
74980		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		14/11/1979	50.30		100	858	North West
97267		Private Individual/Corporation	Domestic water supply	Percussion (cable)		05/02/1985	49.00		100	872	South
97271		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		06/02/1983	48.20		100	940	South West
330382		Department of Manufacturing & Industry Development				31/12/1919	94.18		300	977	West
97224		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		25/07/1978	64.00	3.32	300	1318	South
330381		Department of Manufacturing & Industry Development				31/12/1919	35.66		300	1419	West
74985		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		06/12/1982	32.30		100	1823	North

Boreholes Earth Resources Data Source: © The State of Victoria, Department of Economic Development, Jobs, Transport and Resources 2015. Creative Commons Attribution 3.0 Australia

## Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Direct
N/A	No records within buffer						

Boreholes FedUni Data Source: © Federation University Australia

## Historical Mining Activity - Shafts

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Historical Mining Activity - Shafts

Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

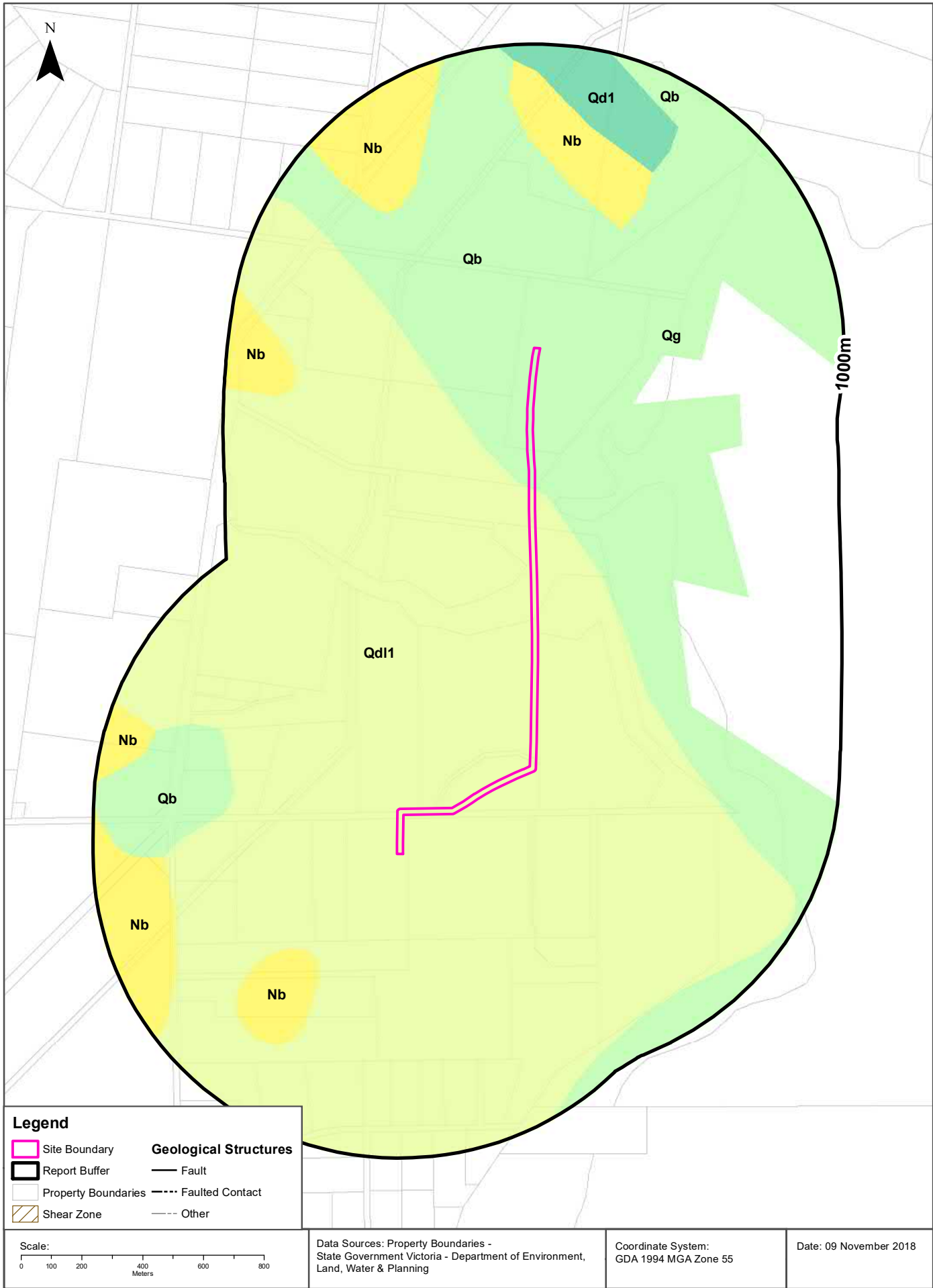
Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Historical Mining Activity Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources

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Geology 1:250,000

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Geological Units

What are the Geological Units onsite?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Qb	alluvium and colluvium( Qb): generic	Sand, silt, clay, gravel, diamictite; alluvial and colluvial deposits	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant); gravel material (significant)	1:250,000
Qd1	coastal dune deposits (Qd1): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nb	Brighton Group( Nb): generic	Gravel, sand, silt: variably calcareous to ferruginous sandstones and coquinas; marine to nonmarine	Miocene to Pliocene	silt material (significant); sand (significant); gravel material (significant)	1:250,000
Qb	alluvium and colluvium( Qb): generic	Sand, silt, clay, gravel, diamictite; alluvial and colluvial deposits	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant); gravel material (significant)	1:250,000
Qd1	inland dune deposits (Qd1): generic	Sand, silt, clay: friable to consolidated; well sorted; includes both lunette deposits and deposits of longitudinal dunes	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qd1	coastal dune deposits (Qd1): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qg	coastal lagoon deposits (Qg): generic	Silt, clay: dark grey to black; variably consolidated	Holocene to Holocene	silt material (significant); clay lithology (significant)	1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Geological Structures

What are the Geological Faults or Faulted Contacts onsite?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

What are the Dykes, Marker Beds and Veins onsite?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones onsite (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

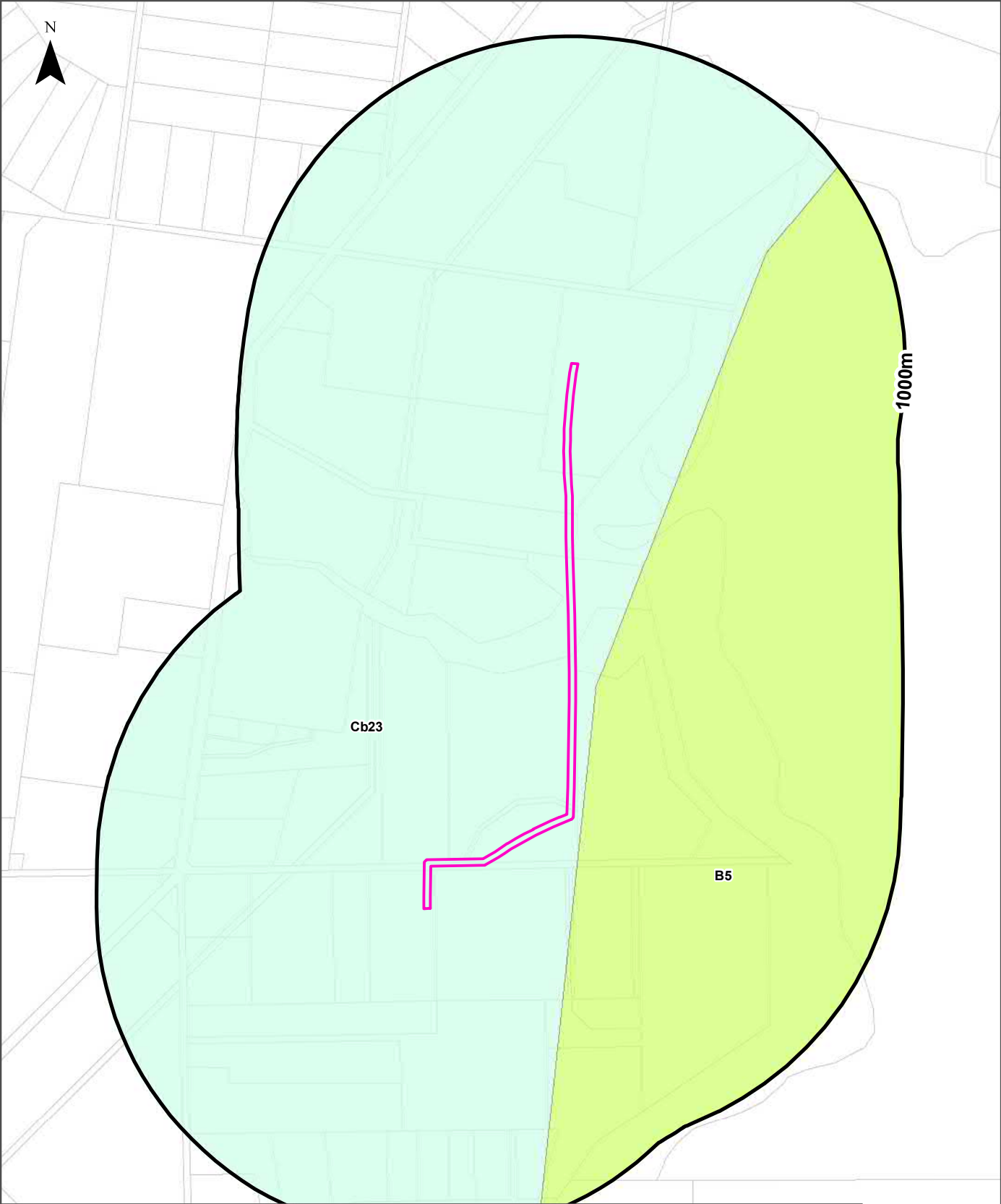
What are the Dykes, Marker Beds and Veins within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones within the dataset buffer (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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Legend		Australian Soil Classification Orders							
Site Boundary	Anthrosol	Dermosol	Kandosol	Podosol	Tenosol	No Data			
Report Buffer	Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol				
Property Boundary	Chromosol	Hydrosol	Organosol	Sodosol	Lake				

Scale: 0 100 200 400 600 800 Meters	Data Sources: Property Boundaries - State Government Victoria - Department of Environment, Land, Water & Planning	Coordinate System: GDA 1994 MGA Zone 55	Date: 09 November 2018
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## Soil Landscapes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Atlas of Australian Soils

Australian soil types within the dataset buffer:

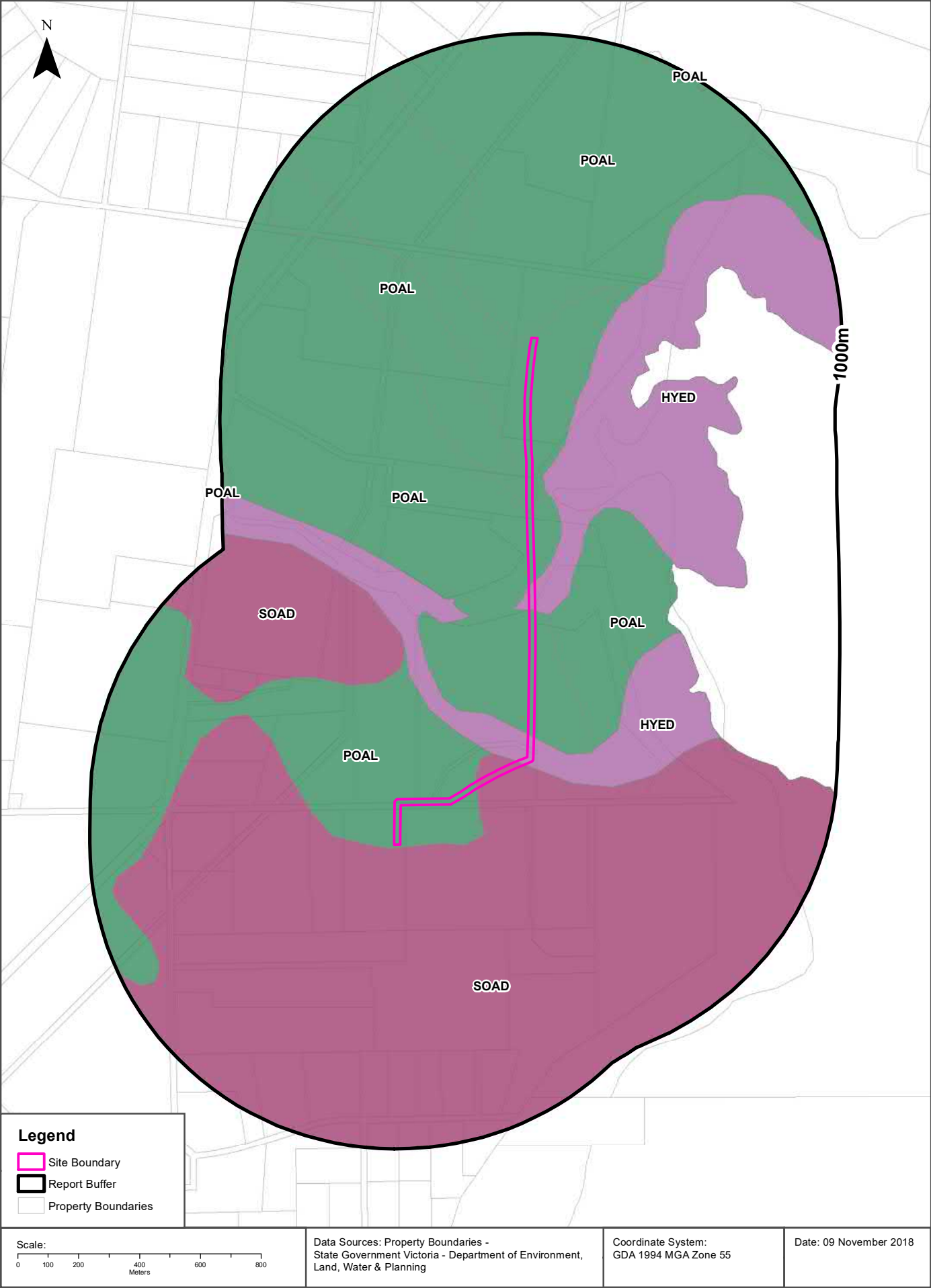
Symbol	Soil Order	Map Unit Description	Distance
Cb23	Podosol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests. and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m
B5	Rudosol	Coastal plains with dunes, swamps, and lakes: plains and dunes of siliceous sands (Uc1.2) and silty soils (Um1) and plains of clay soils (Uf) and (Ug); some terrace remnants where the plains merge with the stream valleys of dark, deep, porous loamy soils (Um6.12) on the lower terraces, and hard alkaline soils (Dr2.23) on the higher terraces.	25m

Atlas of Australian Soils: CSIRO

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Victorian Soil Type Mapping

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## Soil Landscapes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

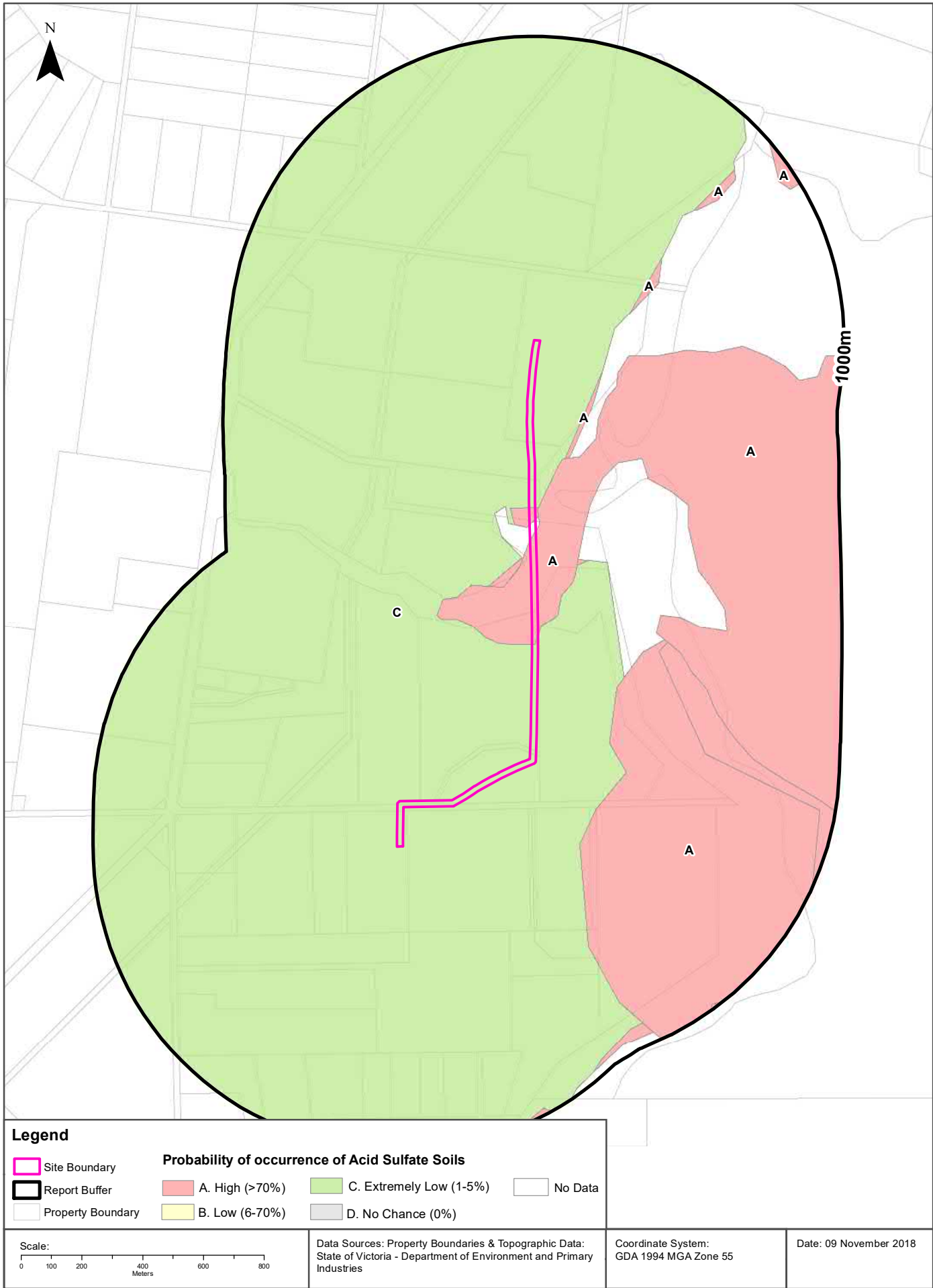
### Victorian Soil Type Mapping

Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance
HYED	Redoxic Hydrosols	0m
POAL	Aeric Podosols	0m
SOAD	Grey Sodosols	0m

Victorian Soil Type Mapping Data Source: Department of Economic Development, Jobs, Transport and Resources  
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## Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Atlas of Australian Acid Sulfate Soils

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

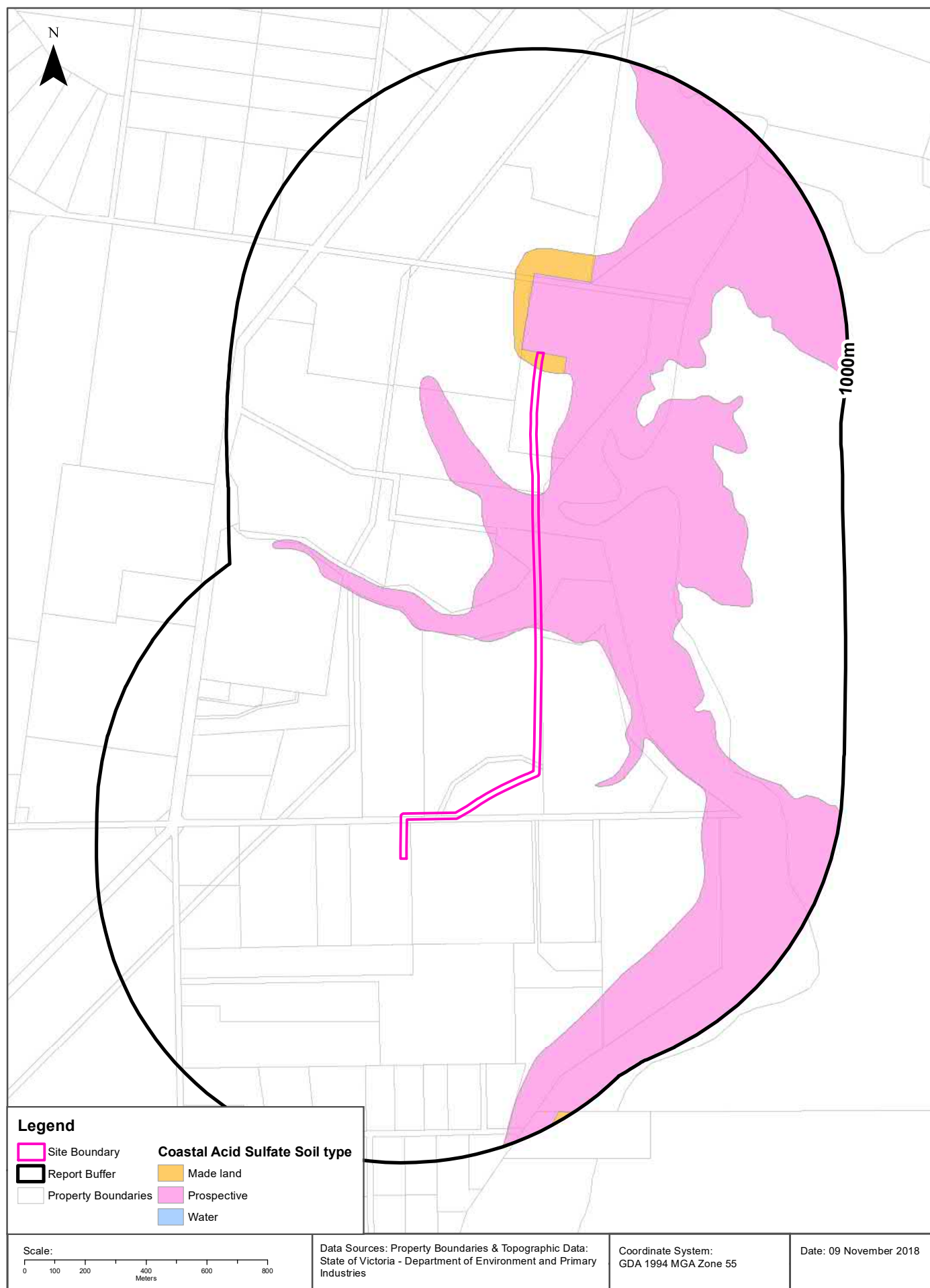
PROBCLASS	Description	Distance
A	High Probability of occurrence. >70% chance of occurrence.	0m
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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# Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Coastal Acid Sulfate Soils

What are the on-site Coastal Acid Sulfate Soil types?

Coastal Acid Sulfate Soil Types
Made land
Prospective

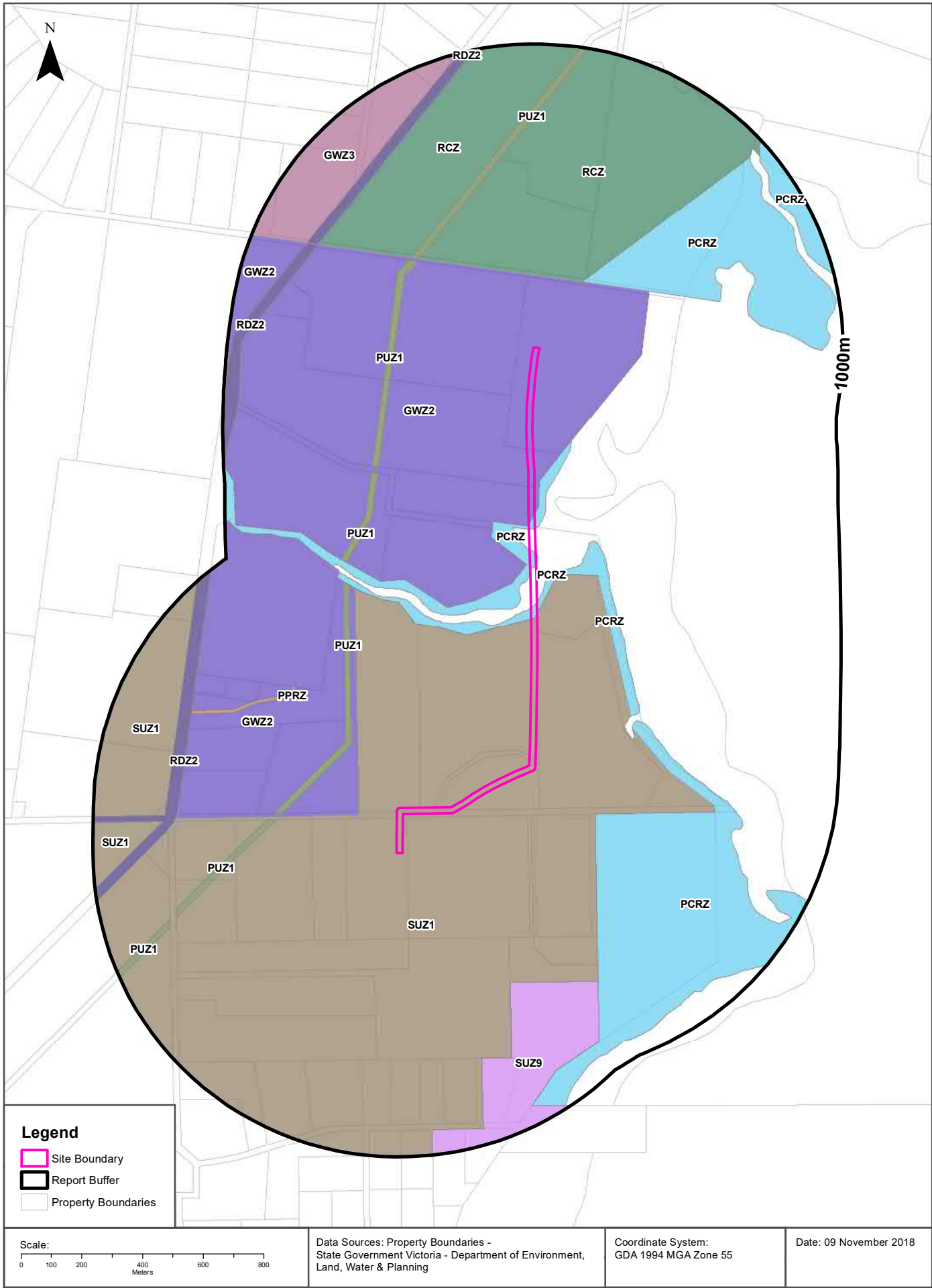
What are the Coastal Acid Sulfate Soil types within the dataset buffer?

Coastal Acid Sulfate Soil Types	Distance	Direction
Made land	0m	Onsite
Prospective	0m	Onsite
Made land	971m	South

Coastal Acid Sulfate Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





## Planning Zones

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Planning Zones

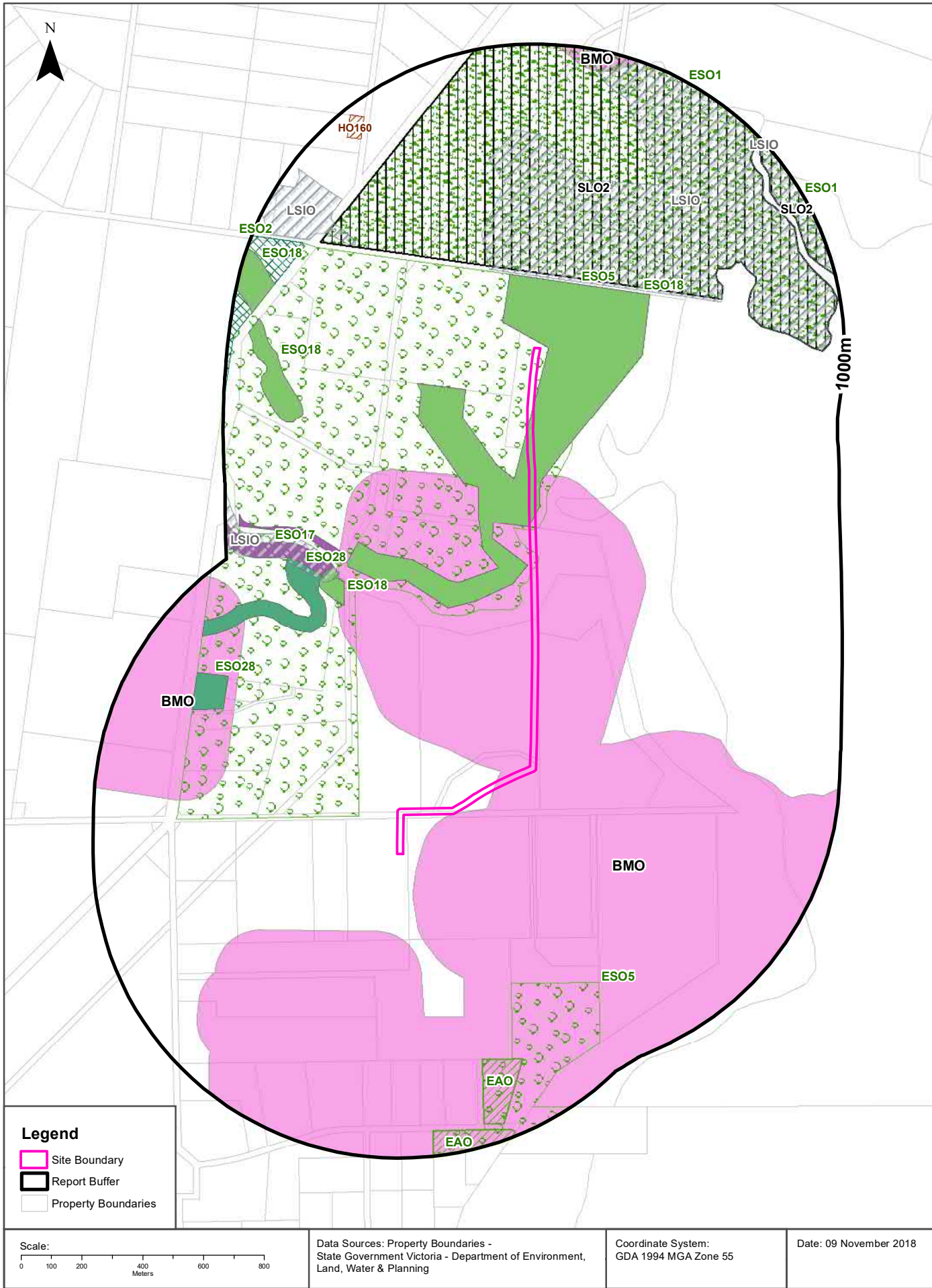
Planning zones within the dataset buffer:

Zone Code	Description	Distance	Direction
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	0m	Onsite
GWZ2	GREEN WEDGE ZONE - SCHEDULE 2	0m	Onsite
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	0m	Onsite
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	68m	East
GWZ2	GREEN WEDGE ZONE - SCHEDULE 2	127m	West
RCZ	RURAL CONSERVATION ZONE	236m	North East
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	246m	South East
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	258m	North East
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	260m	South West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	399m	South West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	454m	North West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	478m	North
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	497m	North West
PPRZ	PUBLIC PARK AND RECREATION ZONE	503m	West
SUZ9	SPECIAL USE ZONE - SCHEDULE 9	554m	South
RDZ2	ROAD ZONE - CATEGORY 2	716m	West
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	756m	West
RDZ2	ROAD ZONE - CATEGORY 2	767m	North
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	771m	South West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	778m	South West
GWZ3	GREEN WEDGE ZONE - SCHEDULE 3	798m	North West
GWZ2	GREEN WEDGE ZONE - SCHEDULE 2	823m	North West
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	913m	North East

Planning Zone Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## Planning Overlays

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Planning Overlays

Planning overlays within the dataset buffer:

Zone Code	Description	Distance	Direction
BMO	BUSHFIRE MANAGEMENT OVERLAY	0m	Onsite
ESO5	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 5	0m	Onsite
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	0m	Onsite
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	235m	North East
ESO1	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1	245m	North East
SLO2	SIGNIFICANT LANDSCAPE OVERLAY - SCHEDULE 2	245m	North East
ESO5	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 5	554m	South
BMO	BUSHFIRE MANAGEMENT OVERLAY	583m	West
ESO17	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 17	612m	North West
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	618m	West
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	631m	North West
ESO17	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 17	648m	West
ESO28	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 28	651m	West
ESO28	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 28	665m	West
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	680m	North West
EAO	ENVIRONMENTAL AUDIT OVERLAY	726m	South
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	739m	North West
ESO2	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 2	827m	North West
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	880m	North West
HO160	HERITAGE OVERLAY (HO160)	893m	North
EAO	ENVIRONMENTAL AUDIT OVERLAY	916m	South
BMO	BUSHFIRE MANAGEMENT OVERLAY	932m	North

Planning Overlay Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Victorian Heritage Register

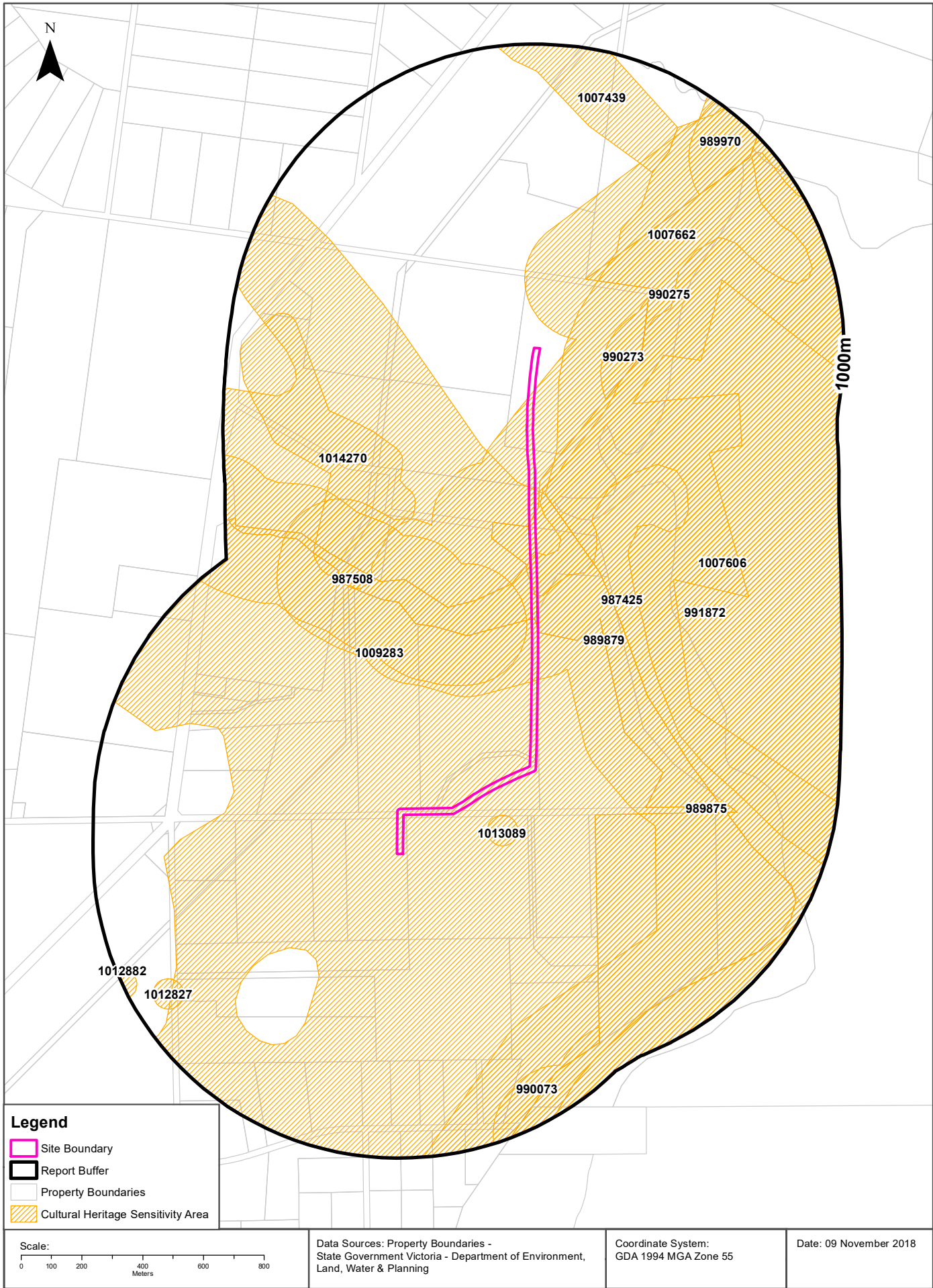
What are the Victorian Heritage Register items located within the dataset buffer?:

VHR Number	Description	Distance	Direction
N/A	No records within buffer		

Victorian Heritage Register Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Cultural Heritage Sensitivity

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





## Heritage

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Cultural Heritage Sensitivity

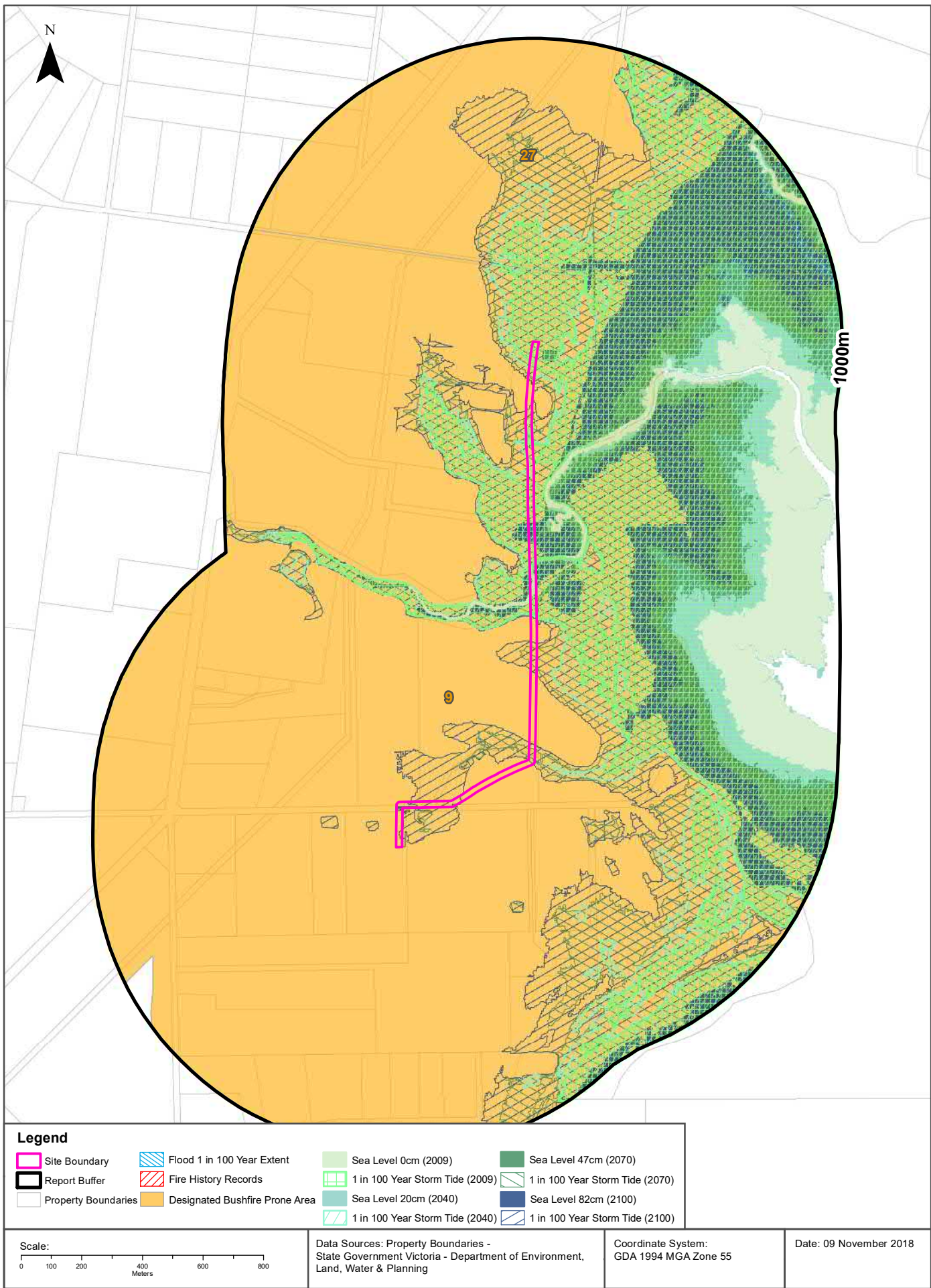
Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2007, within the dataset buffer:

Map Id	Distance	Direction
1009283	0m	Onsite
987425	0m	Onsite
991872	0m	Onsite
1007606	0m	Onsite
987508	17m	West
1007662	33m	East
1013089	81m	South
990273	208m	North
989879	213m	East
1014270	375m	North West
990275	406m	North East
989875	528m	South East
1007439	686m	North
989970	728m	North East
1012827	831m	South West
990073	835m	South
1012882	952m	South West

Cultural Heritage Sensitivity Data Custodian: State Government Victoria - Dept of Planning and Community Development  
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# Natural Hazards

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
9	Designated Bushfire Prone Area	LEGL./17-396	MORNINGTON PENINSULA	02/06/2017	0m	Onsite
27	Designated Bushfire Prone Area	LEGL./18-238	CASEY	16/05/2018	235m	North East

Bushfire Prone Area Data Custodian: State Government Victoria - Dept of Transport, Planning & Local Infrastructure  
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## Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
N/A	No records within buffer									

Fire History Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records within buffer					

Flood Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

## Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

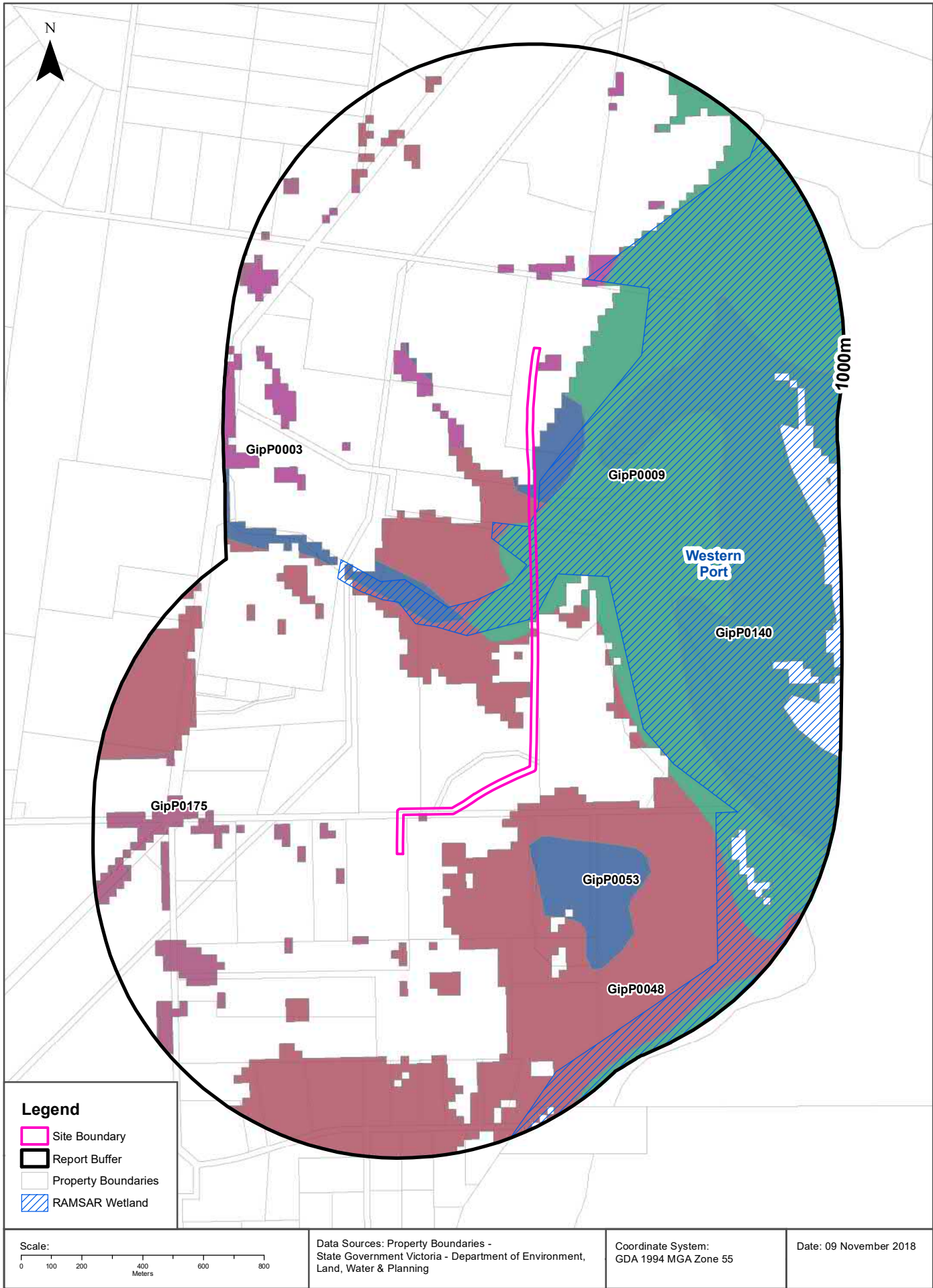
Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	0m	Onsite
Current (2009) inundation to 1-in-100 year storm tide level	0m	Onsite
Projected 82cm sea level rise by 2100	0m	Onsite
Projected 47cm sea level rise by 2070	0m	Onsite
Projected 20cm sea level rise by 2040	0m	Onsite
Current (2009) sea level	0m	Onsite
Projected 47cm sea level rise by 2070	0m	North East

Victorian Coastal Inundation Sea Level Rise Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Ecological Constraints - Native Vegetation 2005 & RAMSAR Wetlands

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)





## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Distance
GipP0003	Damp Sands Herb-rich Woodland	0003	Herb-rich Woodlands	Damp Sands	Gippsland Plain	Vulnerable	Common	0m
GipP0009	Coastal Saltmarsh	0009	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Common	0m
GipP0048	Heathy Woodland	0048	Heathy Woodlands	Dry and/or better drained	Gippsland Plain	Least Concern	Common	0m
GipP0053	Swamp Scrub	0053	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	0m
GipP0175	Grassy Woodland	0175	Lower Slopes or Hills Woodlands	Grassy	Gippsland Plain	Endangered	Common	0m
GipP0140	Mangrove Shrubland	0140	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Naturally Restricted	211m

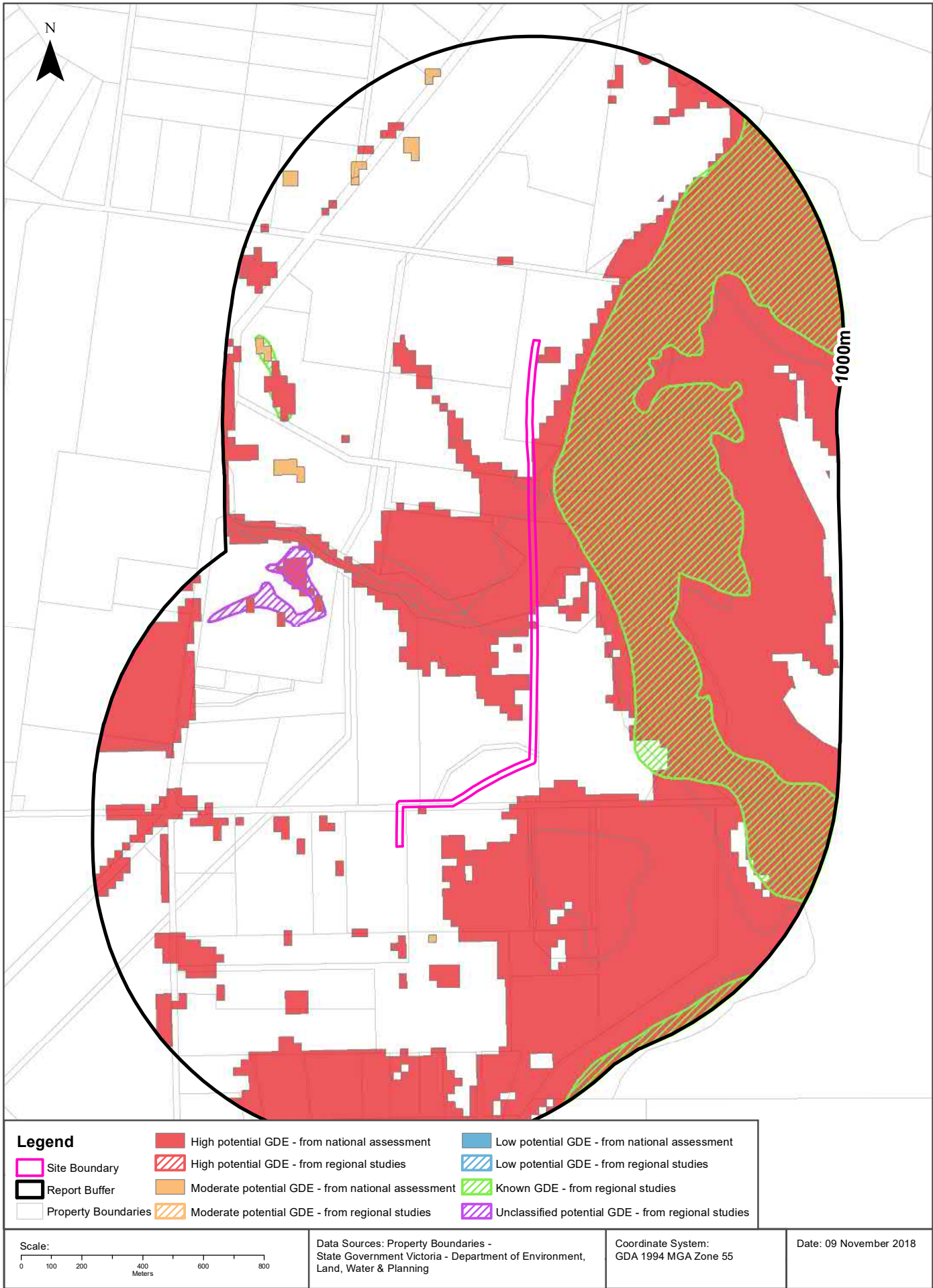
Native Vegetation Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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### RAMSAR Wetlands

What RAMSAR wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
10	Western Port	Western Port	0m	South East

RAMSAR Wetland Area Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Groundwater Dependent Ecosystems Atlas

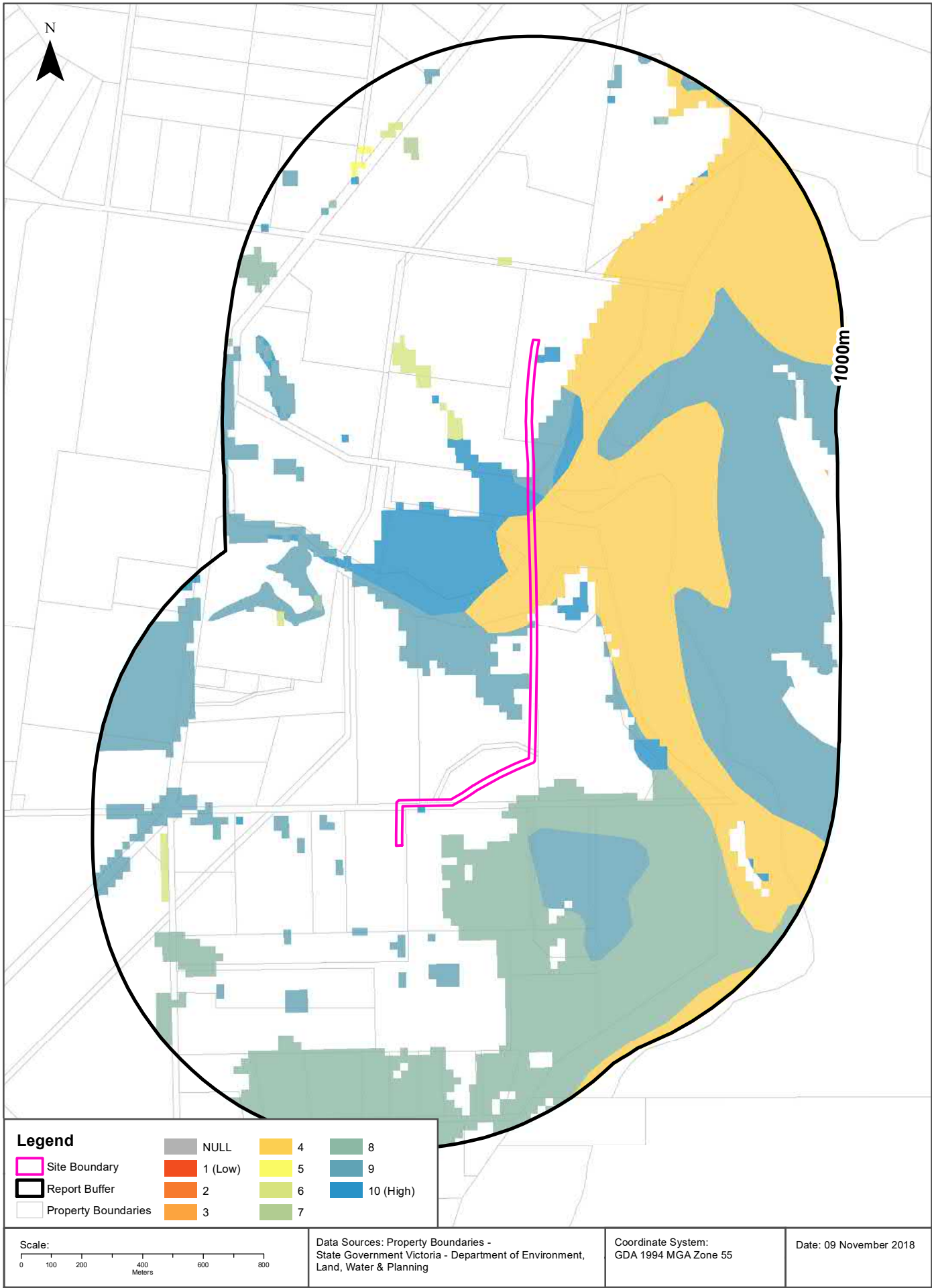
What GDEs exist within the dataset buffer?

GDE Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Aquatic		Known GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		62m
Aquatic	WATSON CREEK	High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	River	Unconsolidated sedimentary	205m
Terrestrial		High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	205m
Terrestrial		Moderate potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	302m
Aquatic		Unclassified potential GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		659m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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# Inflow Dependent Ecosystems Likelihood

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 10)

### Inflow Dependent Ecosystems Likelihood

What IDEs exist within the dataset buffer?

GDE Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		4	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Aquatic		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		62m
Terrestrial		8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	74m
Terrestrial		6	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	208m
Terrestrial		1	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	600m
Aquatic		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		659m
Terrestrial		7	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	700m
Terrestrial		5	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	787m
Terrestrial		3		Vegetation		955m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology  
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# LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

**Address: Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810  
(Section 11)**

**Date: 09 Nov 2018 15:17:29**

**Reference: LS004580 EP**

**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. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

## Table of Contents

Location Confidences.....	2
Dataset Listings .....	3
Site Location Aerial .....	5
Topographic Features.....	6
Elevation Contours.....	7
EPA Records.....	8
Waste Management Facilities .....	12
Former Gasworks.....	13
Historical Business Activities.....	14
Historical Aerial Imagery & Maps .....	19
Features of Interest .....	36
Hydrogeology & Groundwater.....	38
Groundwater Boreholes .....	40
Historical Mining Activity .....	51
Geology .....	52
Soil Types.....	56
Acid Sulfate Soils .....	60
Planning Zones .....	64
Planning Overlays.....	66
Heritage.....	68
Natural Hazards .....	71
Ecological Constraints.....	74
Terms & Conditions.....	80

## 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:

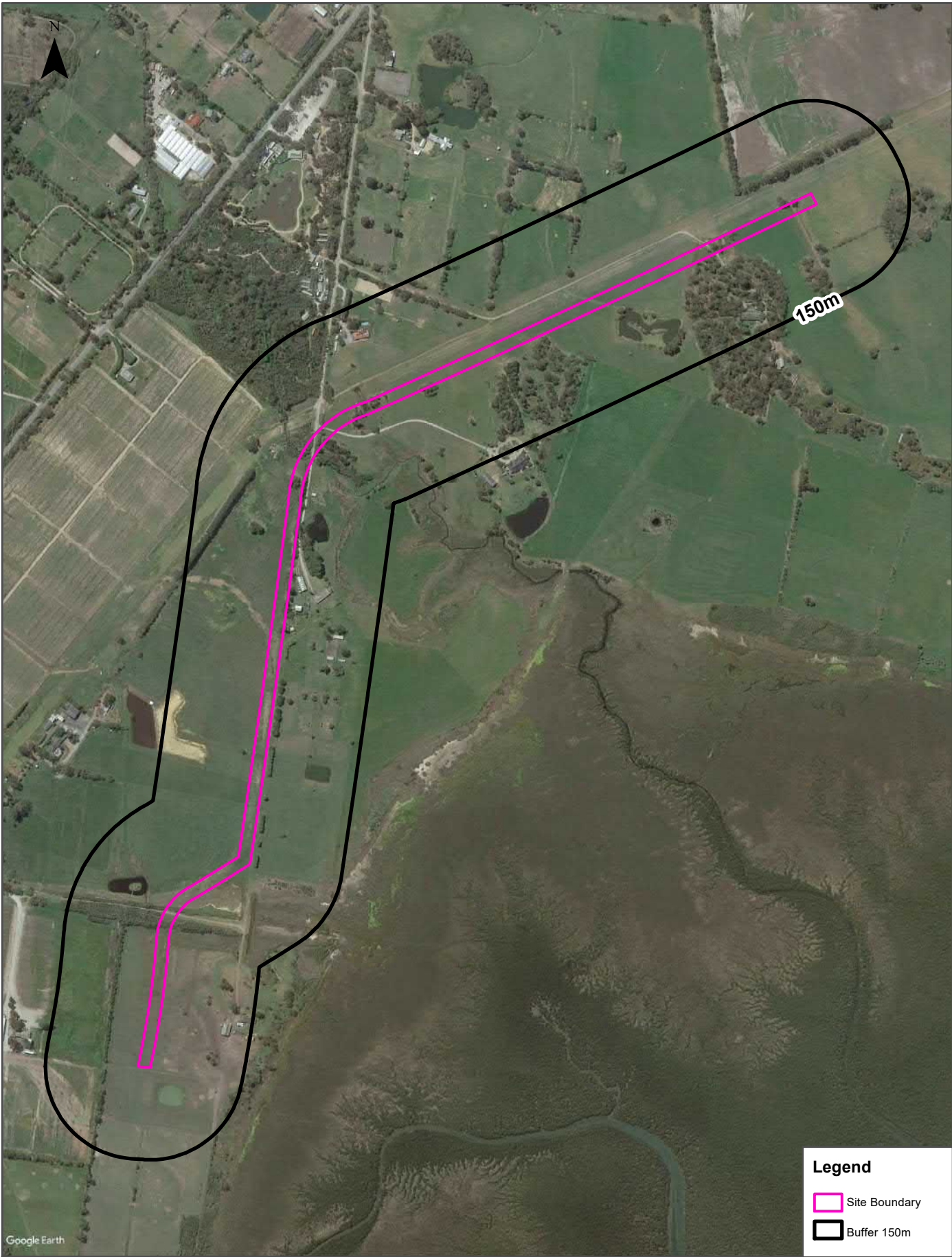
Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	08/10/2018	08/10/2018	Quarterly	-	-	-	-
Current Priority Sites	Environment Protection Authority (Vic)	17/10/2018	31/08/2018	Monthly	1000	0	0	0
Former Priority Sites & other Pollution Notices	Environment Protection Authority (Vic)	19/10/2018	19/10/2018	Monthly	1000	0	0	0
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	19/09/2018	Monthly	1000	0	0	0
Former Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
Works Approvals	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	06/11/2018	07/03/2017	Quarterly	1000	0	0	0
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000	0	0	0
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	23/10/2018	23/10/2018	Quarterly	1000	0	0	0
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	06/09/2018	06/09/2018	Quarterly	1000	0	0	0
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000	0	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 1960-62 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1960-62 (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
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	1	6
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	3
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-



Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	30/10/2018	01/10/2018	Quarterly	2000	0	1	108
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	27/07/2018	17/02/2010	As required	2000	0	0	16
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	18/10/2018	20/07/2018	As required	1000	0	0	0
Geological Units 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	4	-	7
Geological Structures 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	1	1	2
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000	2	2	4
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000	2	2	3
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	2	5	21
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	6	6	21
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	0	0
Cultural Heritage Sensitivity	State Government Victoria - Department of Planning and Community Development	12/10/2018	12/10/2018	Quarterly	1000	3	5	19
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	12/10/2018	16/05/2018	Quarterly	1000	2	2	2
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	28/06/2018	Quarterly	1000	0	0	0
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	18/11/2014	Quarterly	1000	0	0	0
Victorian Coastal Inundation Sea Level Rise	Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000	7	9	11
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000	2	4	7
RAMSAR Wetlands	State Government Victoria - Department of Environment, Land, Water & Planning	28/03/2017	24/06/2013	None planned	1000	0	1	1
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	2	2	4
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	3	4	10

# Aerial Imagery 2017

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

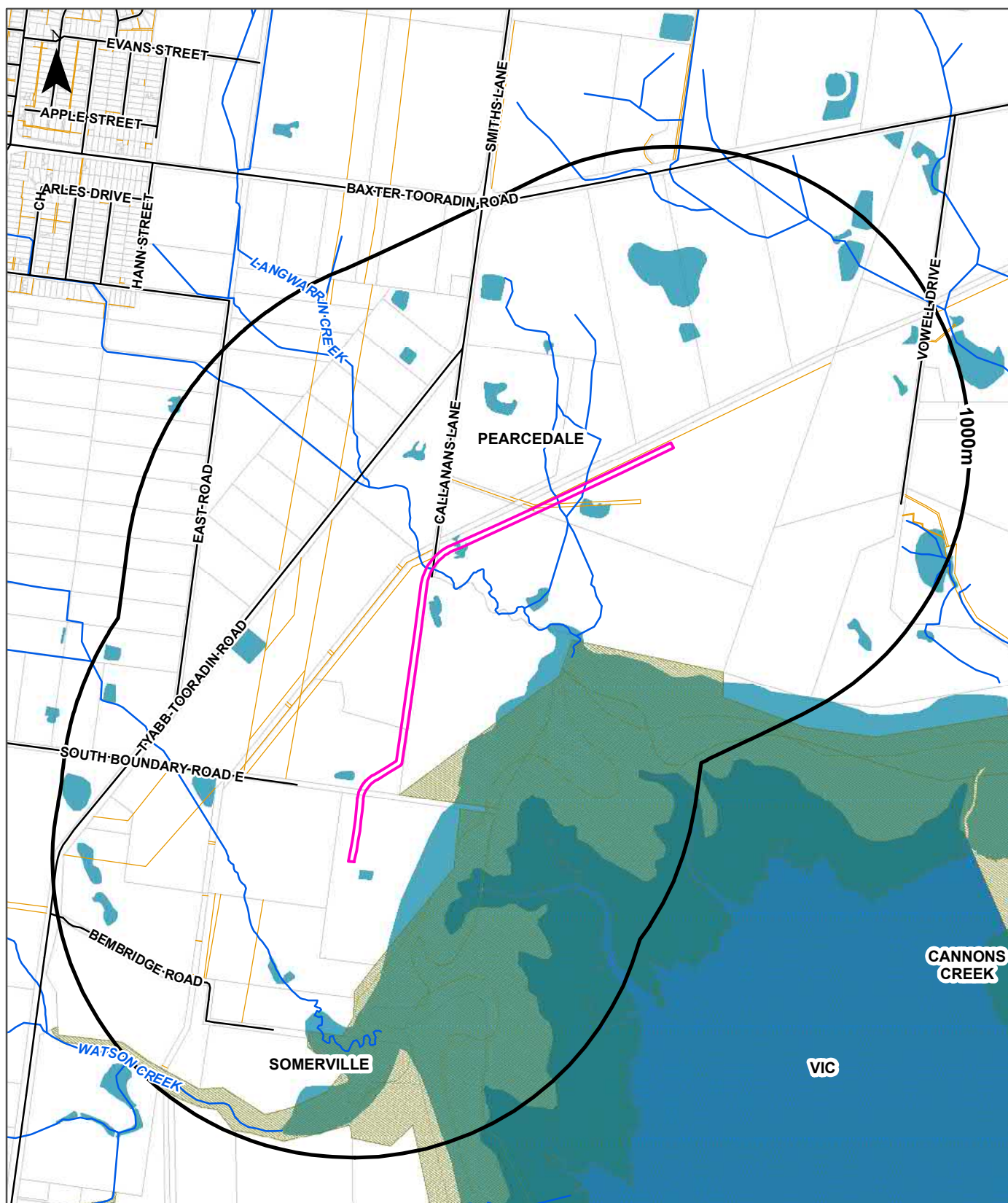


<p>Scale:</p> <p>0 100 200 400</p> <p>Meters</p>	<p>Data Source Aerial Imagery: © 2018 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.</p>	<p>Coordinate System:</p> <p>GDA 1994 MGA Zone 55</p>	<p>Date: 14 November 2018</p>
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# Topographic Data

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Legend

- |                     |                            |               |                           |             |
|---------------------|----------------------------|---------------|---------------------------|-------------|
| Site Boundary       | Water Area                 | Major Road    | Railway                   | Watercourse |
| Report Buffer       | Crown or Commonwealth Land | Road          | Light Rail                | Easement    |
| Property Boundaries | Statewide Forest           | Track/Pathway | Rail - Underground/Tunnel |             |

Scale:

0 100 200 400 600 800 1,000  
Meters

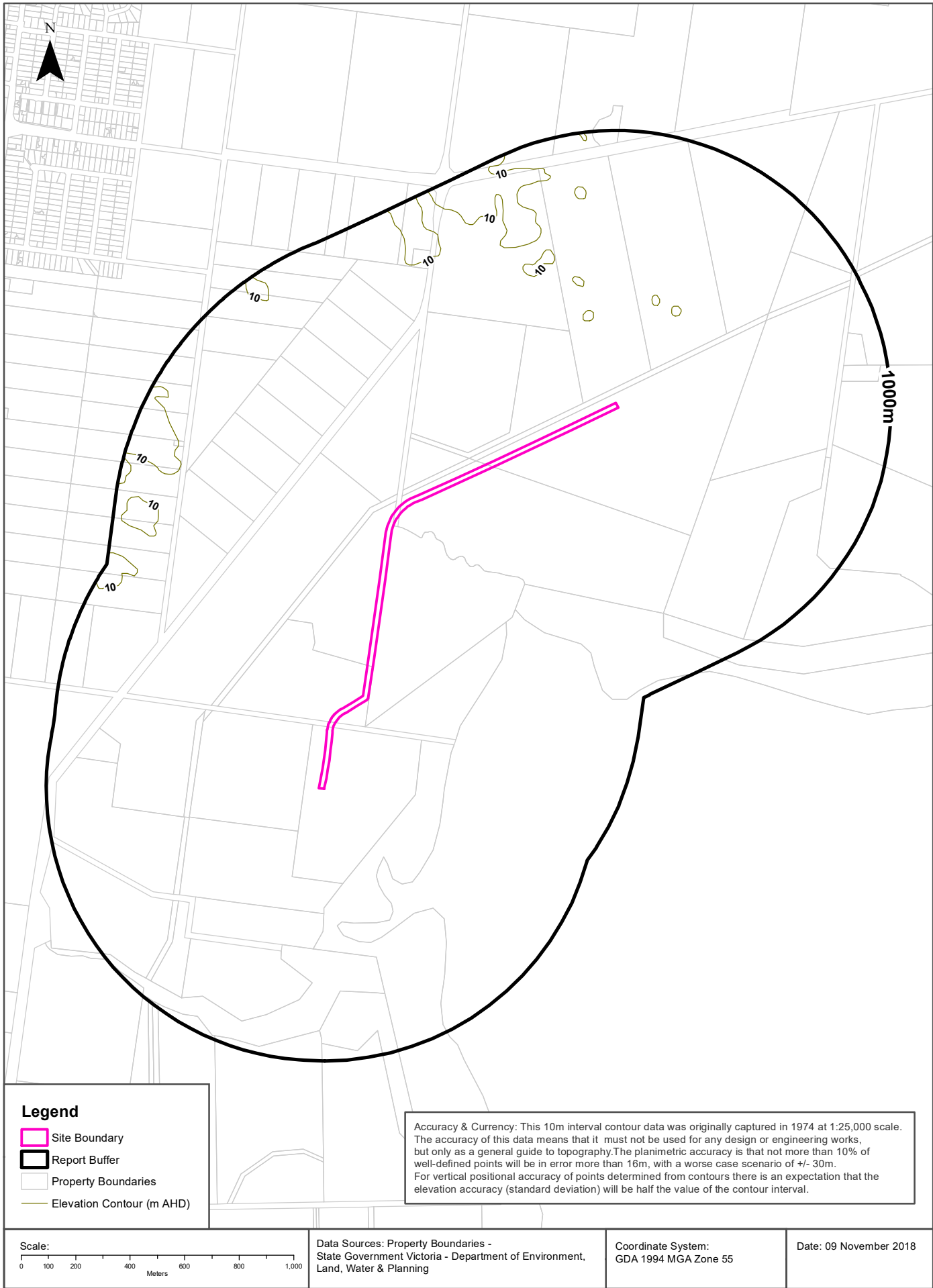
Data Sources: Property Boundaries -  
State Government Victoria - Department of Environment,  
Land, Water & Planning

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 09 November 2018

# Elevation Contours (m AHD) 10m Interval at 1:25,000

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
N/A	No records in buffer					

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

**Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.**

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
N/A	No records in buffer									

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Loc Conf	Distance	Direction
N/A	No records in buffer							

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Loc Conf	Distance	Direction
N/A	No records in buffer						

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer									

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

### Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer						

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

### EPA Works Approvals

EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
N/A	No records in buffer								

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### 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: Australian Government Geoscience Australia

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### Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
N/A	No records in buffer								

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

### EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste sites within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist' (m)	Direct
N/A	No records in buffer									

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

### EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist' (m)	Direction
No records in buffer								

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

## Former Gasworks

**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)**

### Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:

Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources



## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### 1960-62 Business Directory Records Premise or Road Intersection Matches

Records from the 1960-62 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Directory	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

### 1960-62 Business Directory Records Road or Area Matches

Records from the 1960-62 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.	Directory	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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### 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:

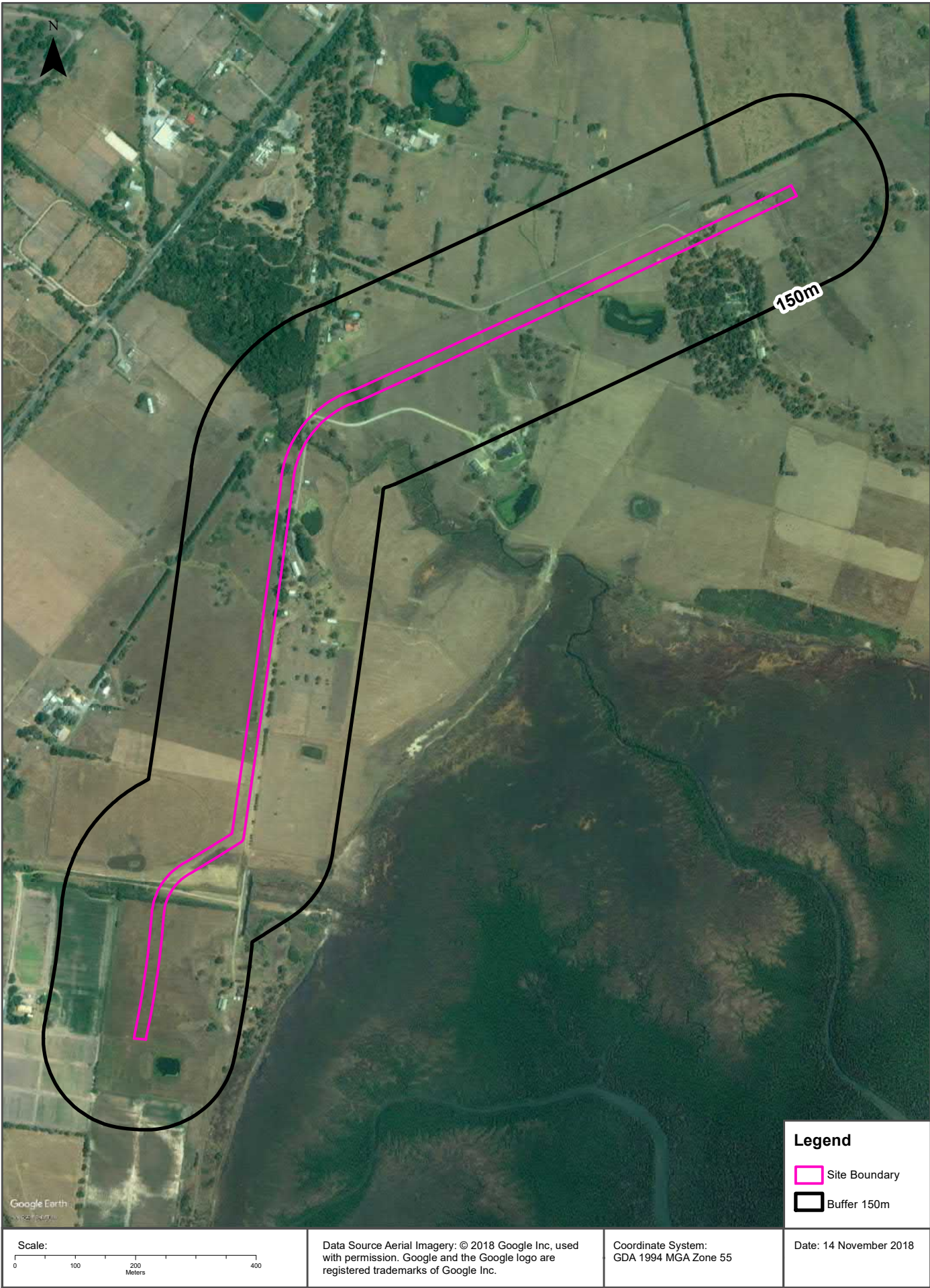
Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer				

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



Aerial Imagery 2010

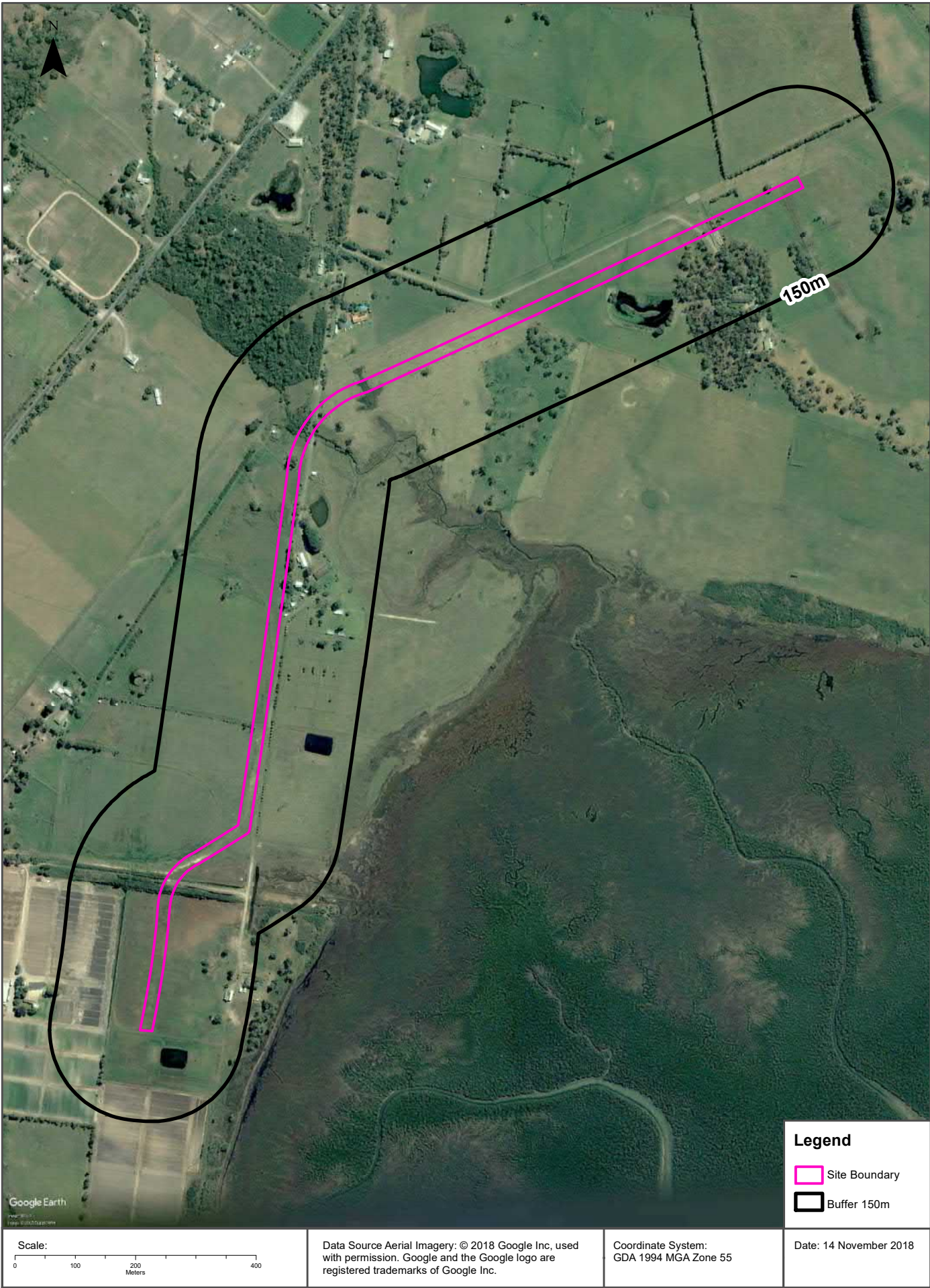
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





# Aerial Imagery 2005

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





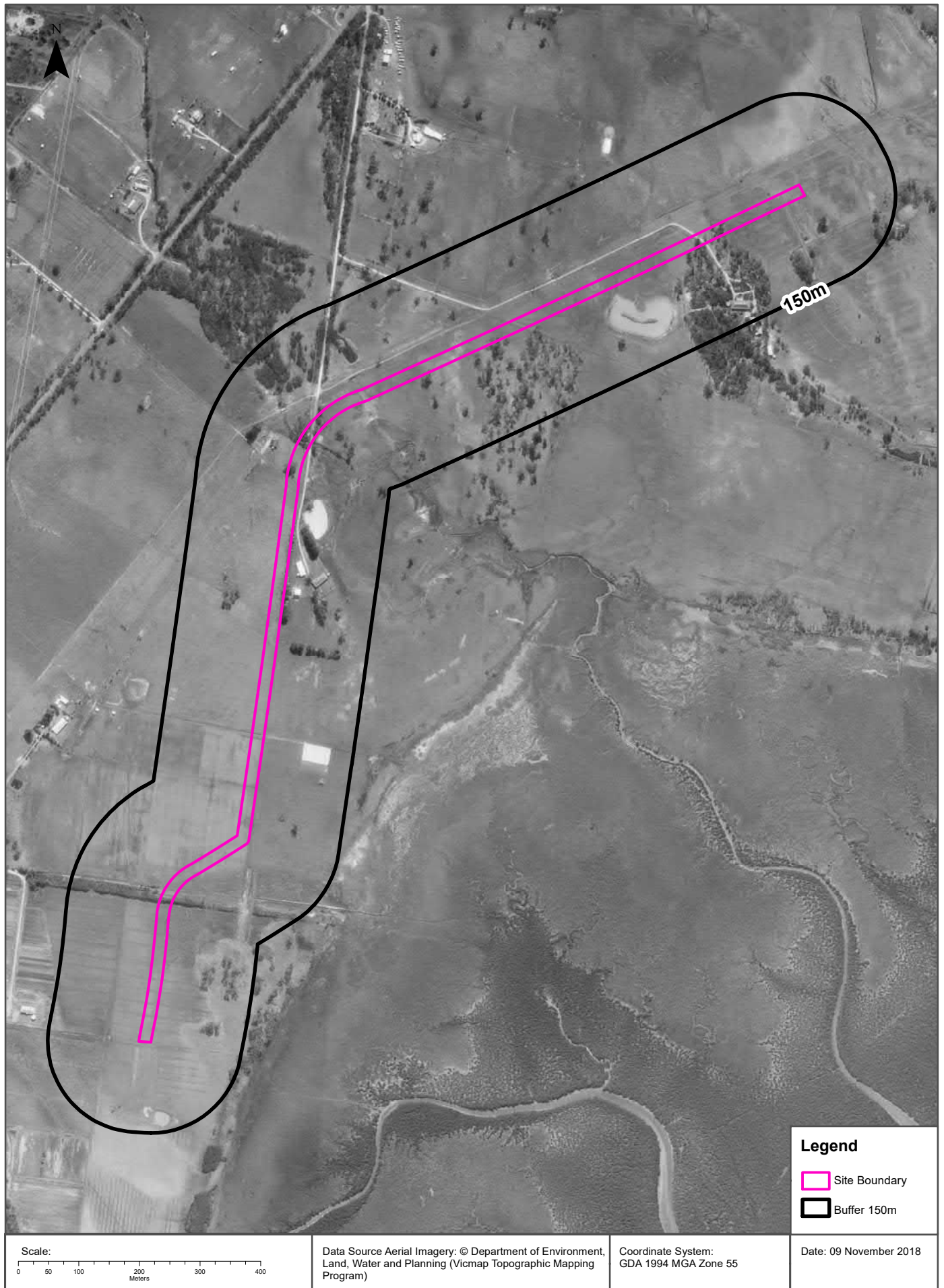
Aerial Imagery 1991

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Aerial Imagery 1985

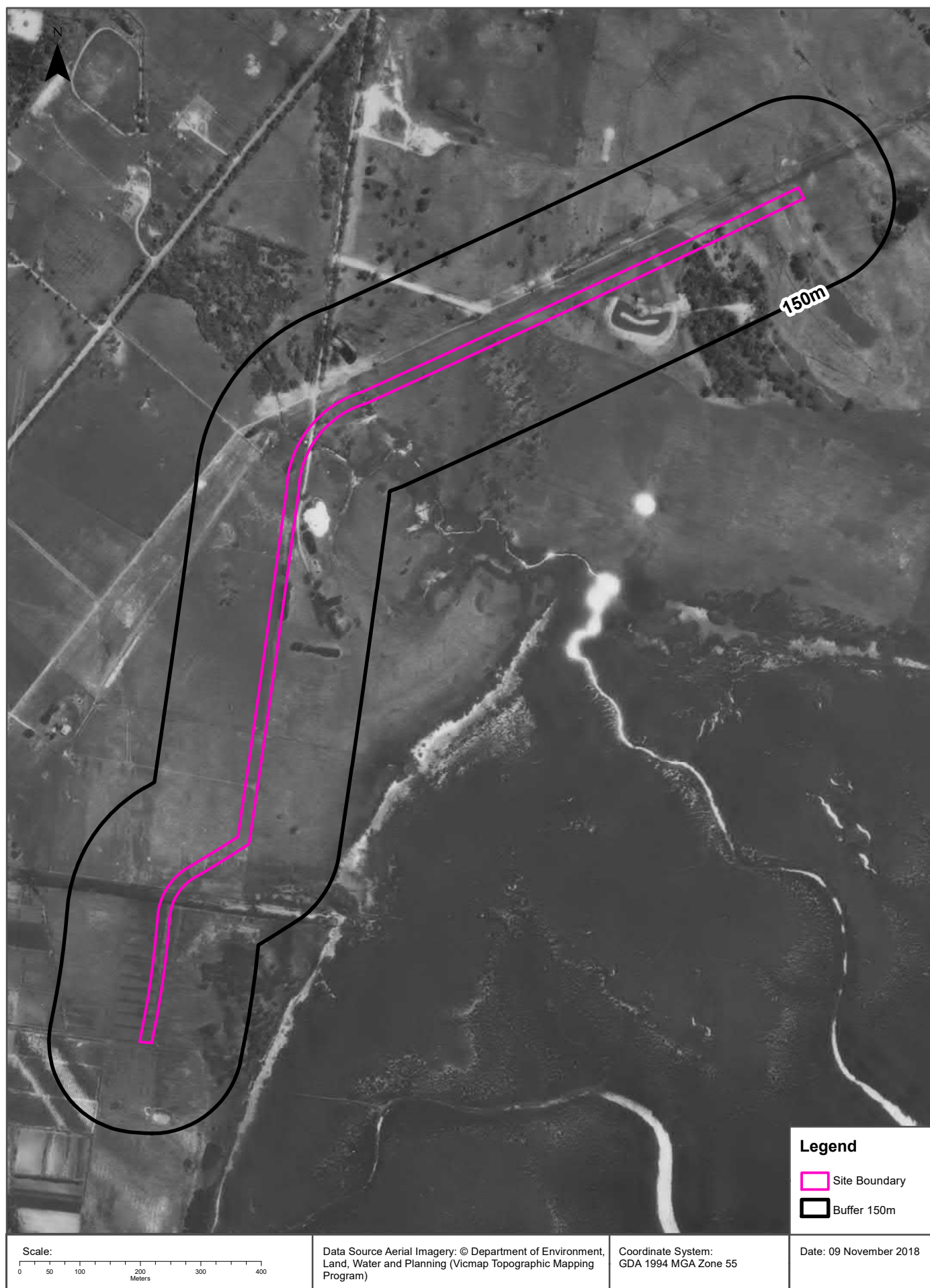
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





## Aerial Imagery 1979

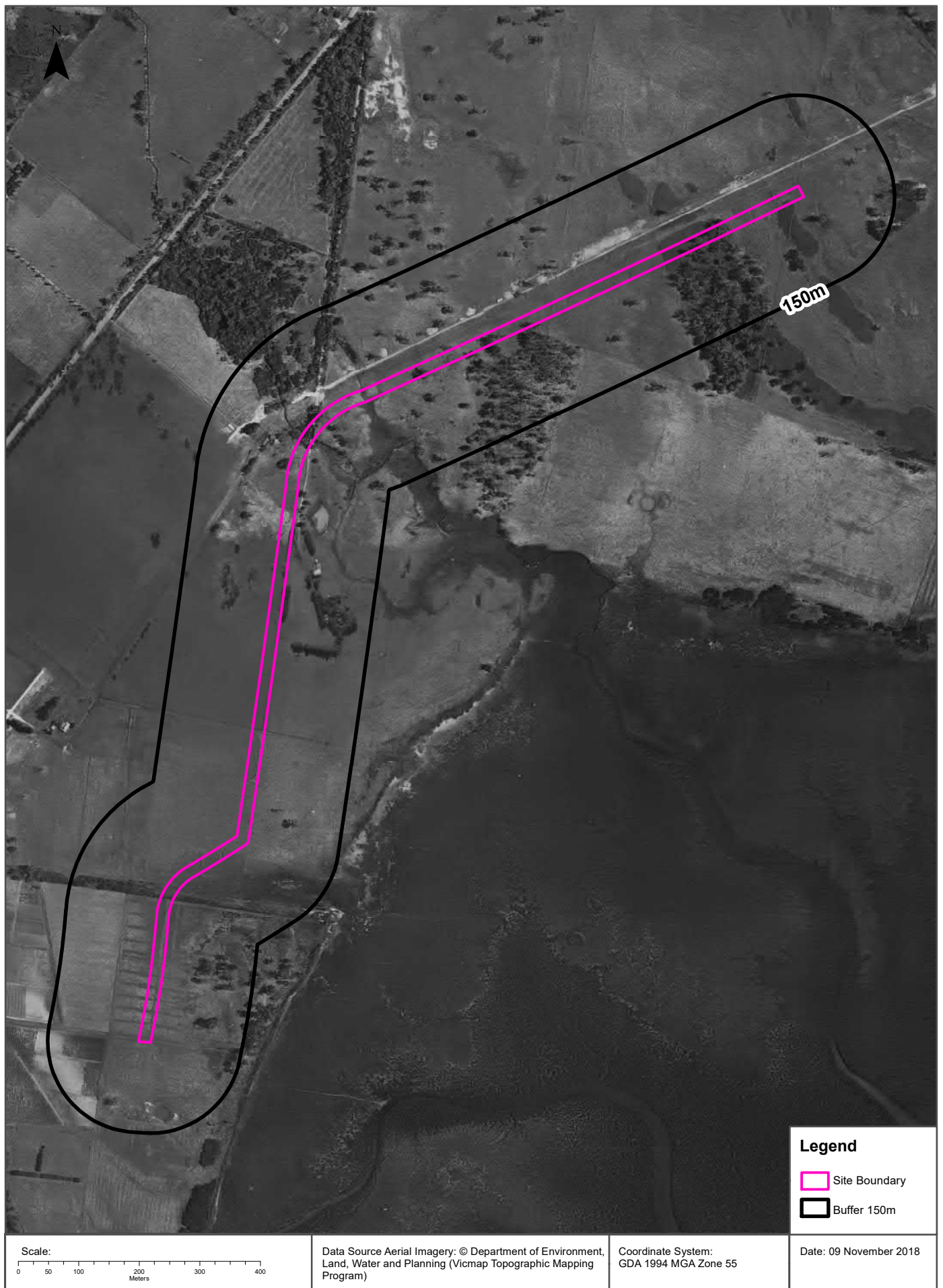
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





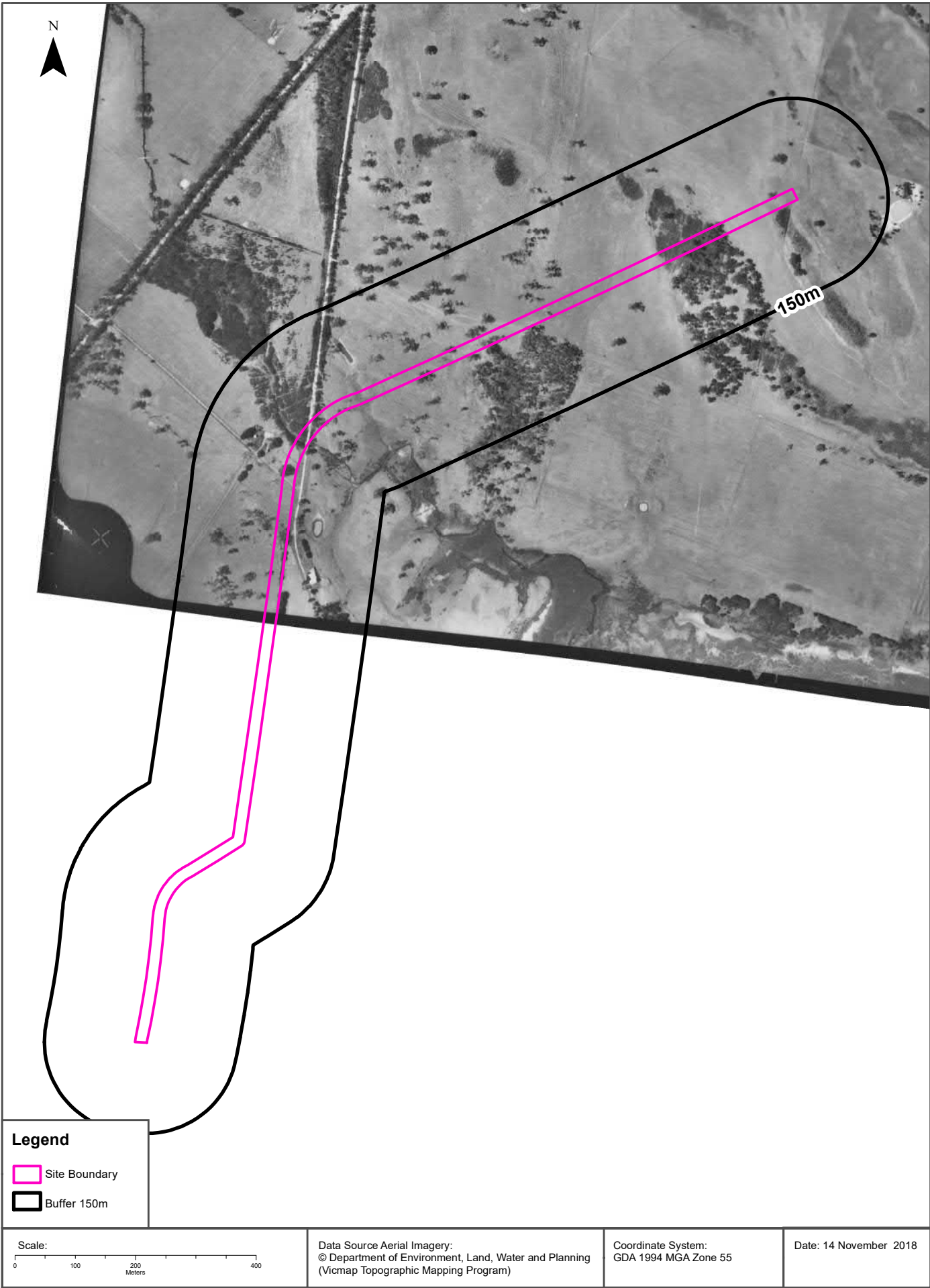
## Aerial Imagery 1974

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



# Aerial Imagery 1968

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





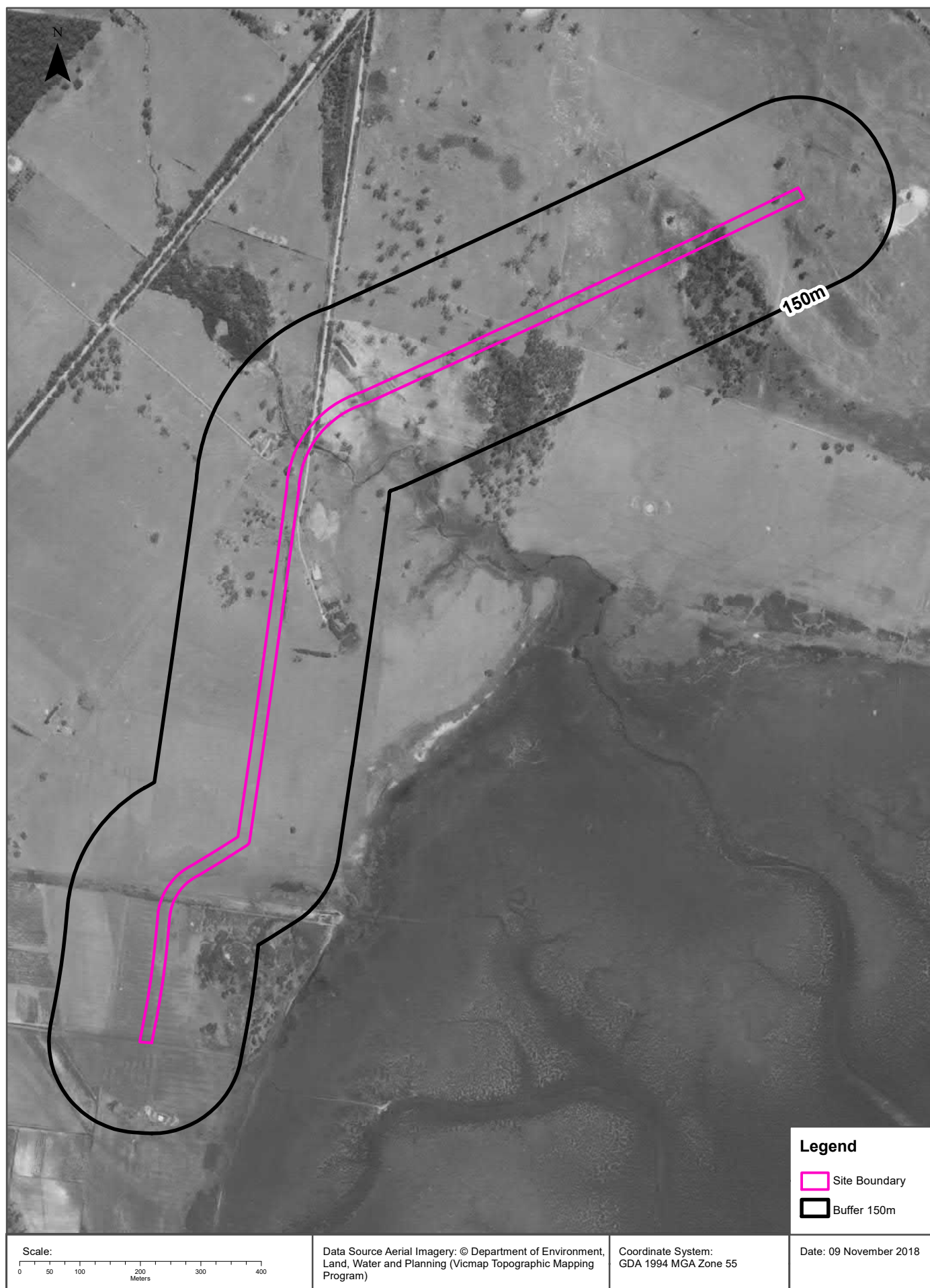
# Aerial Imagery 1968

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Aerial Imagery 1962

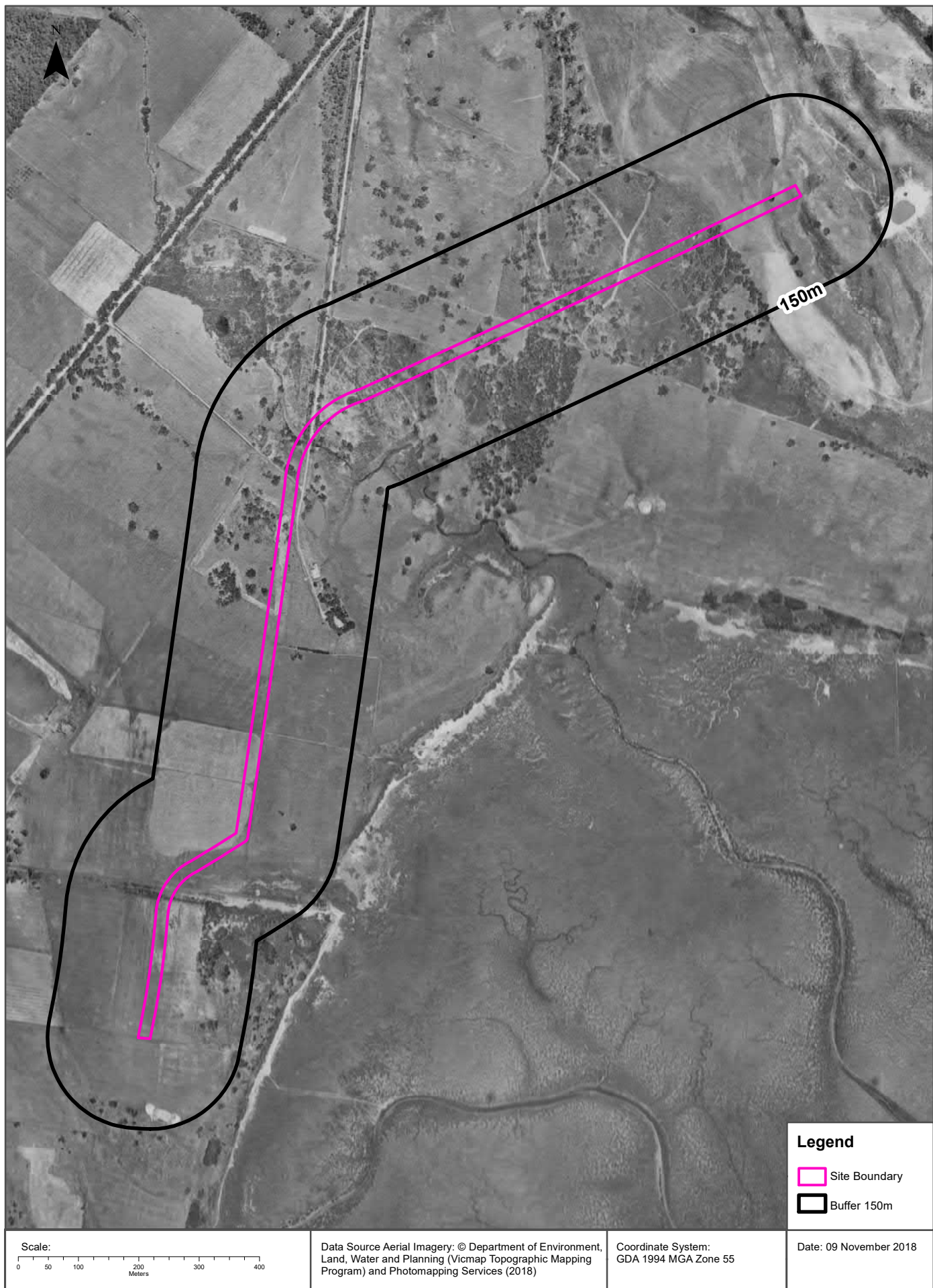
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





Aerial Imagery 1957

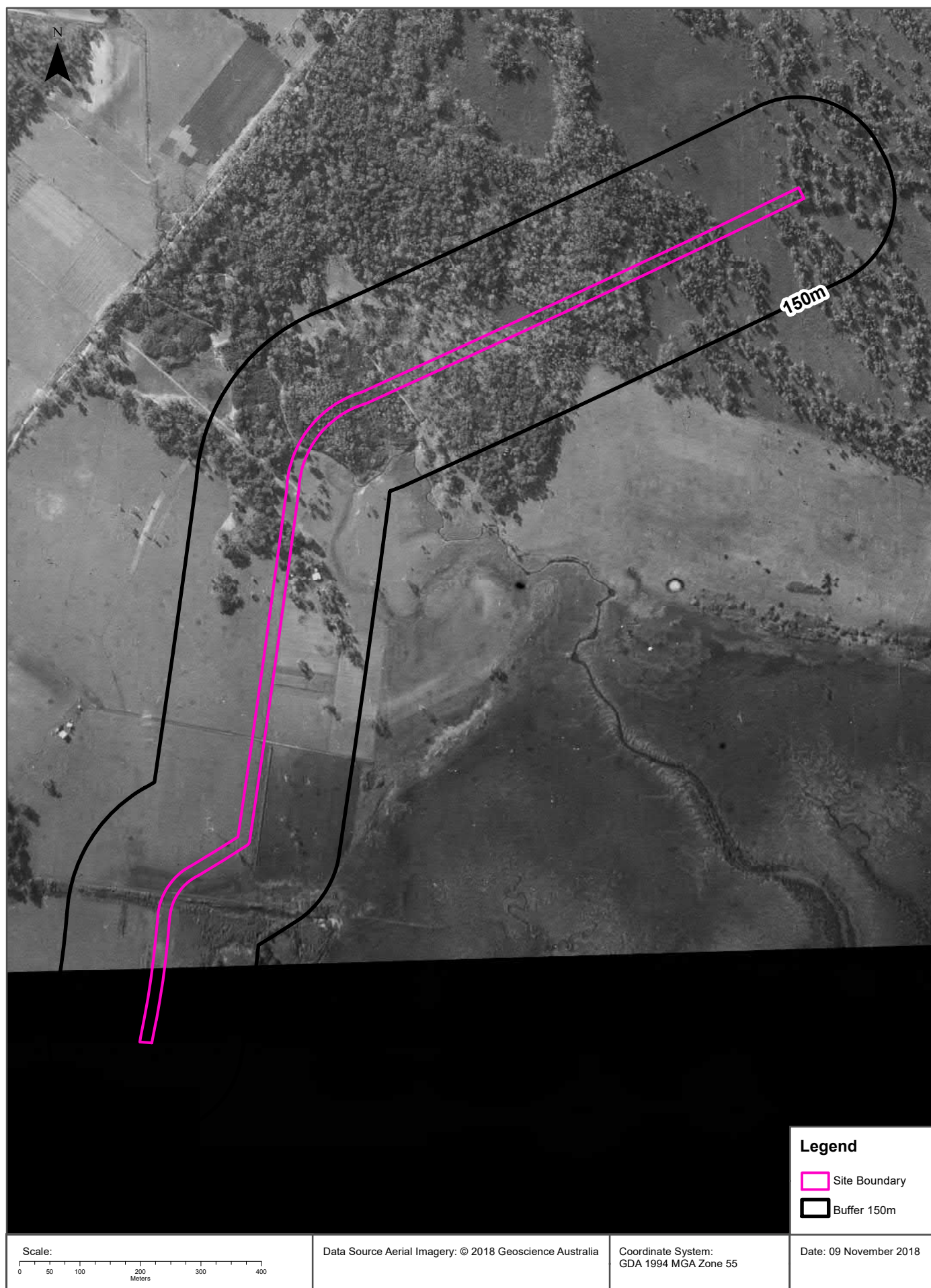
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





## Aerial Imagery 1939

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



Historical Map 2009

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

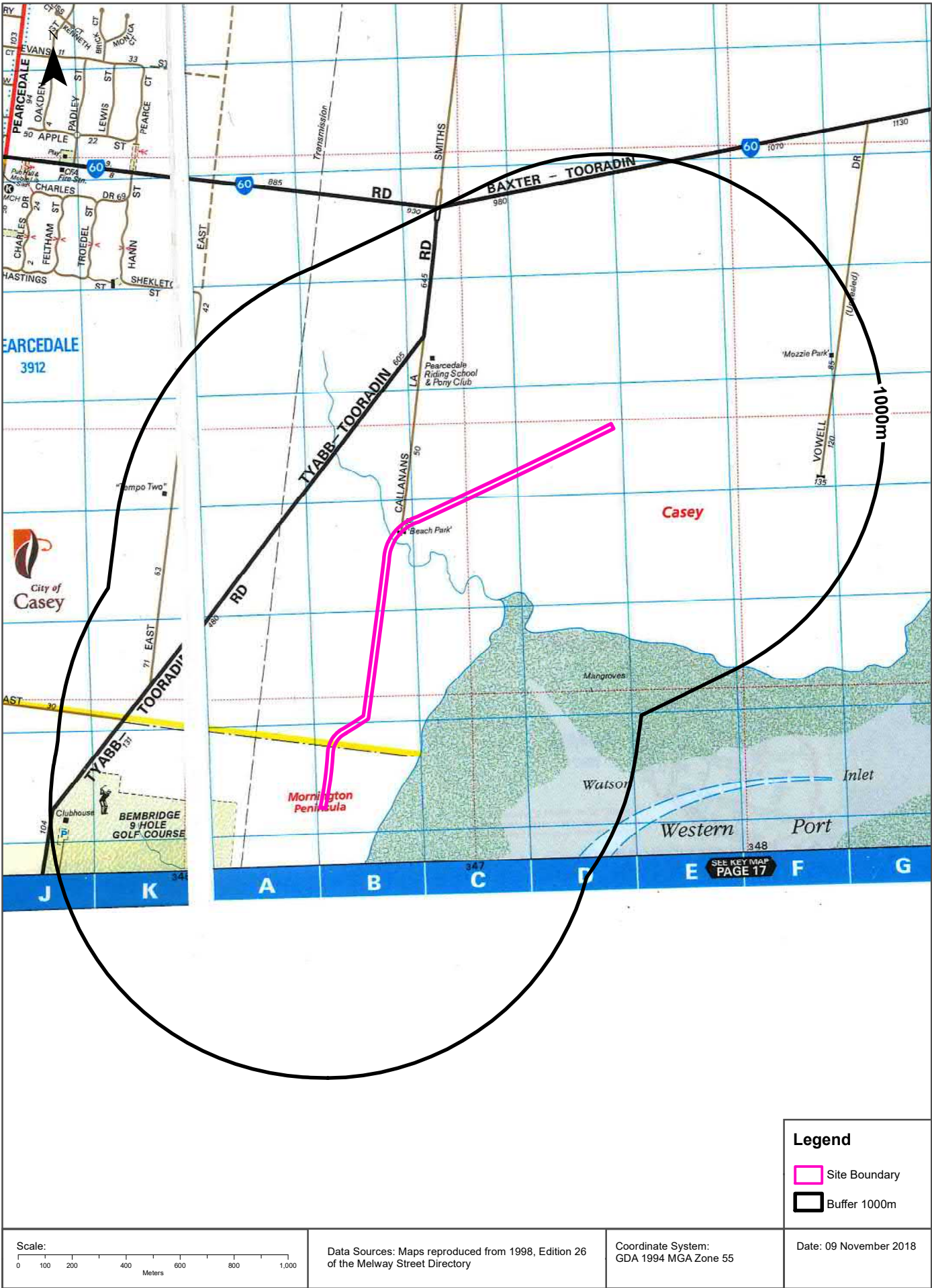


Scale: 0 100 200 400 600 800 1,000 Meters	Data Sources: Maps reproduced from 2009, Edition 36 of the Melway Street Directory	Coordinate System: GDA 1994 MGA Zone 55	Legend <div><div>Site Boundary</div><div>Buffer 1000m</div></div> Date: 09 November 2018
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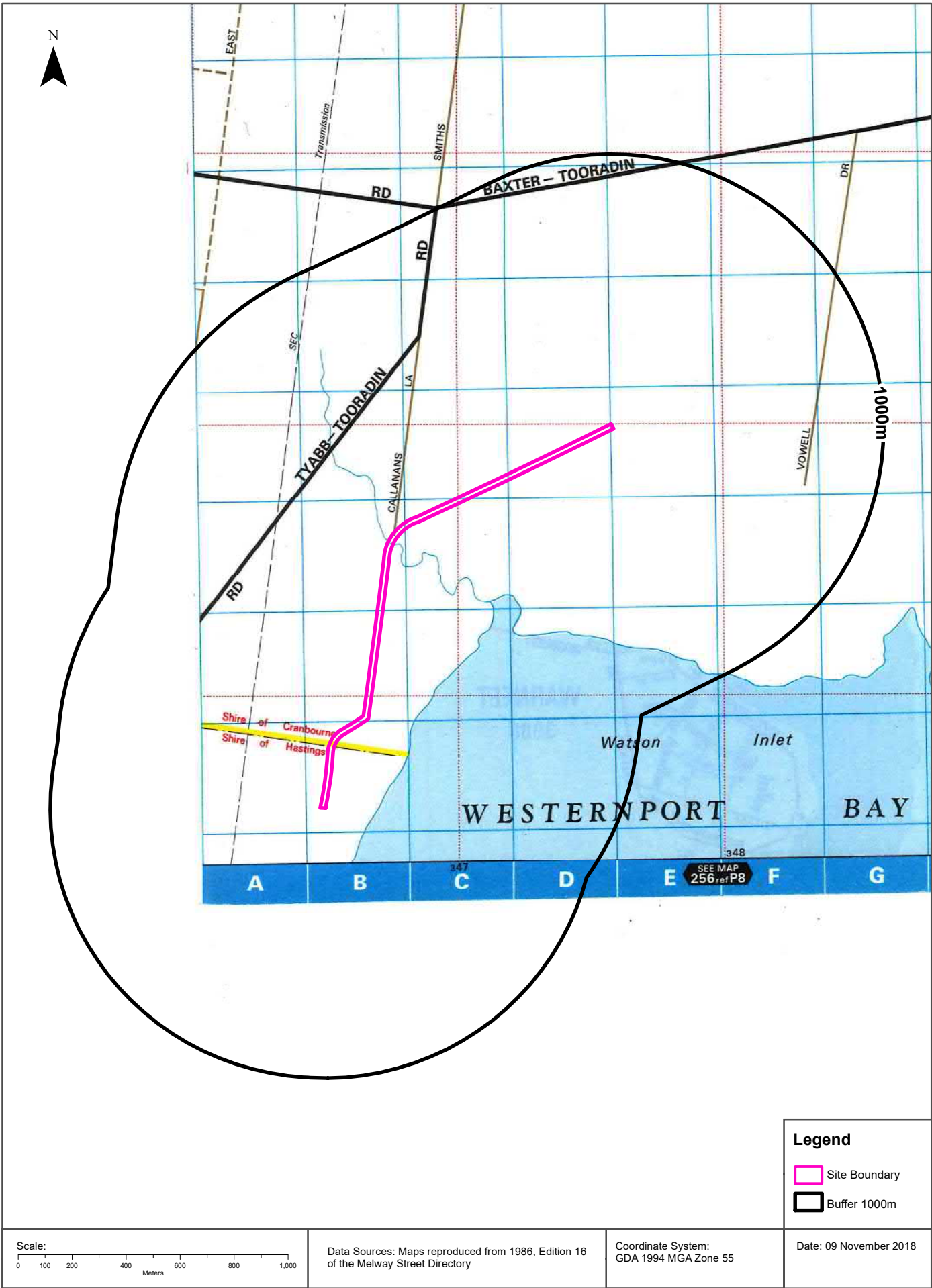
Historical Map 1998

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



# Historical Map 1986

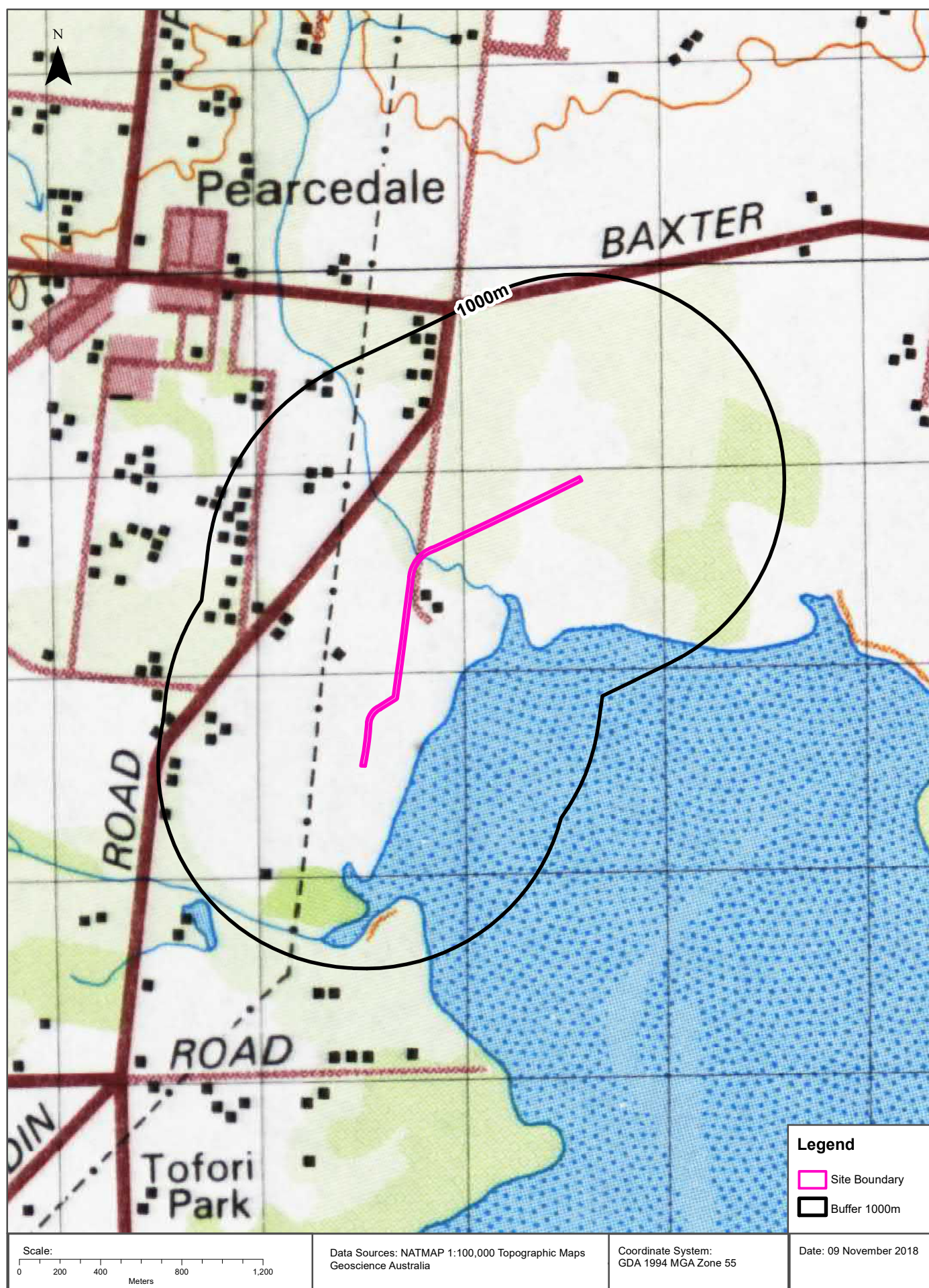
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





## Historical Map 1979

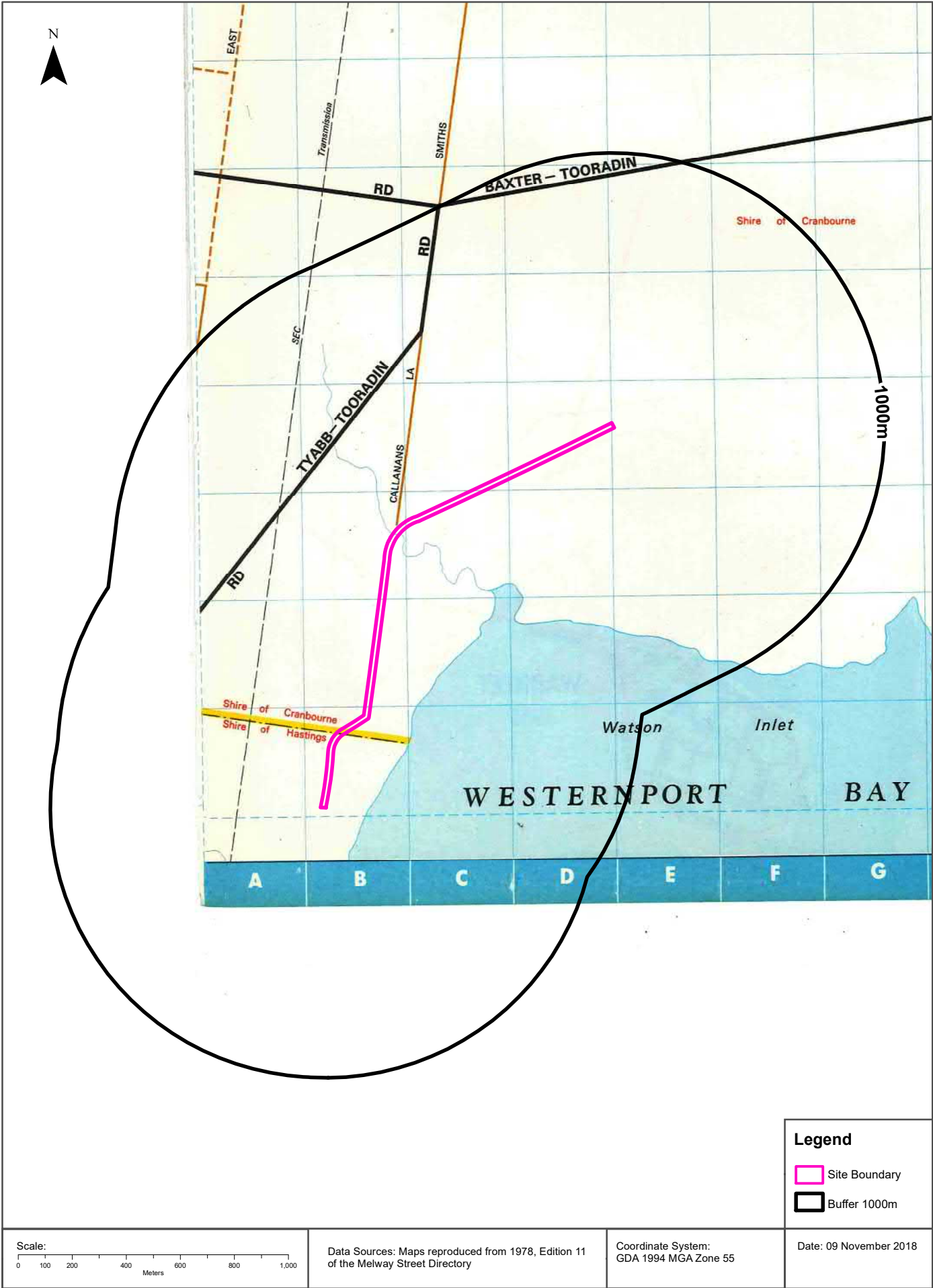
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





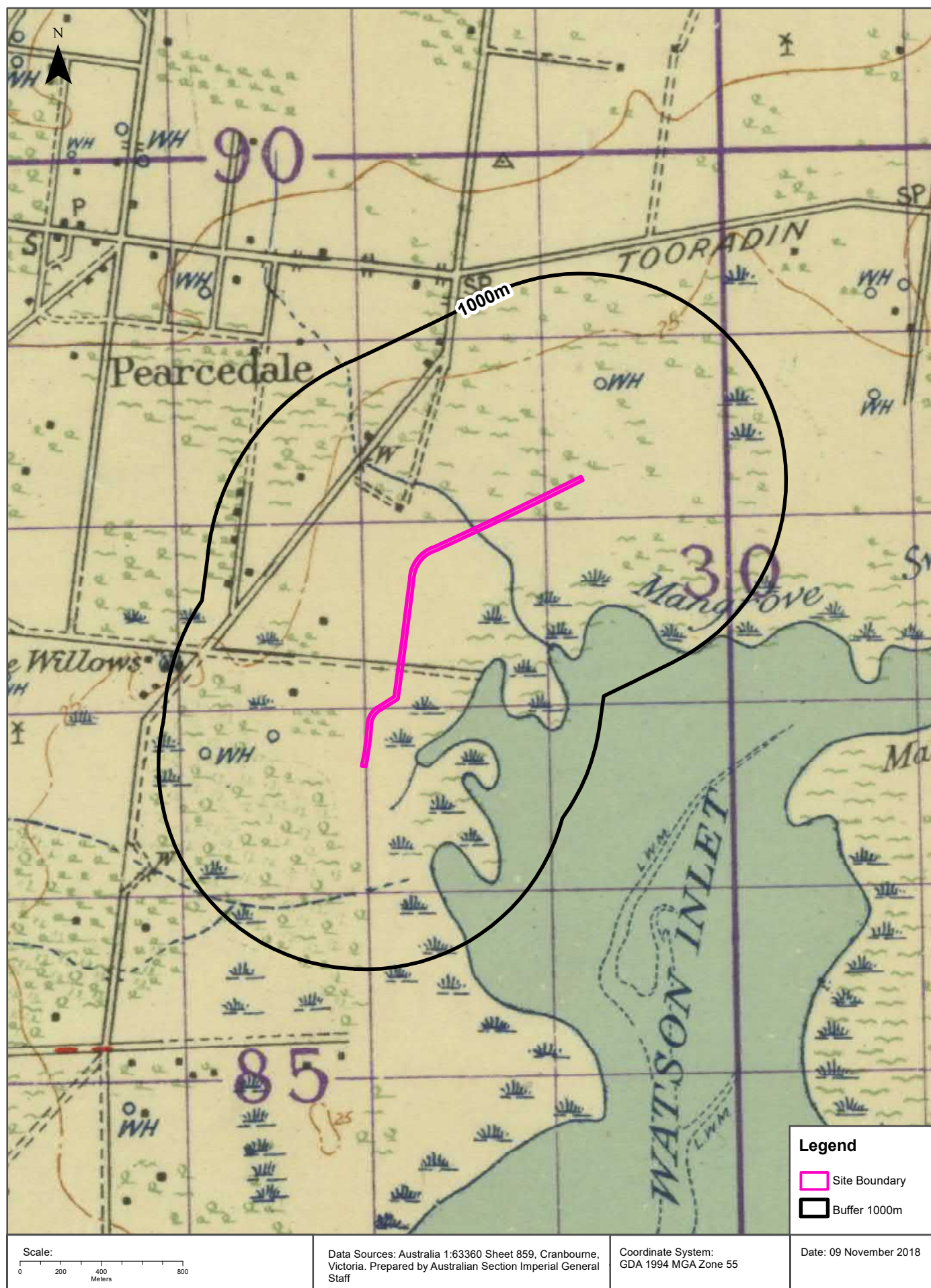
# Historical Map 1978

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



# Historical Map 1938

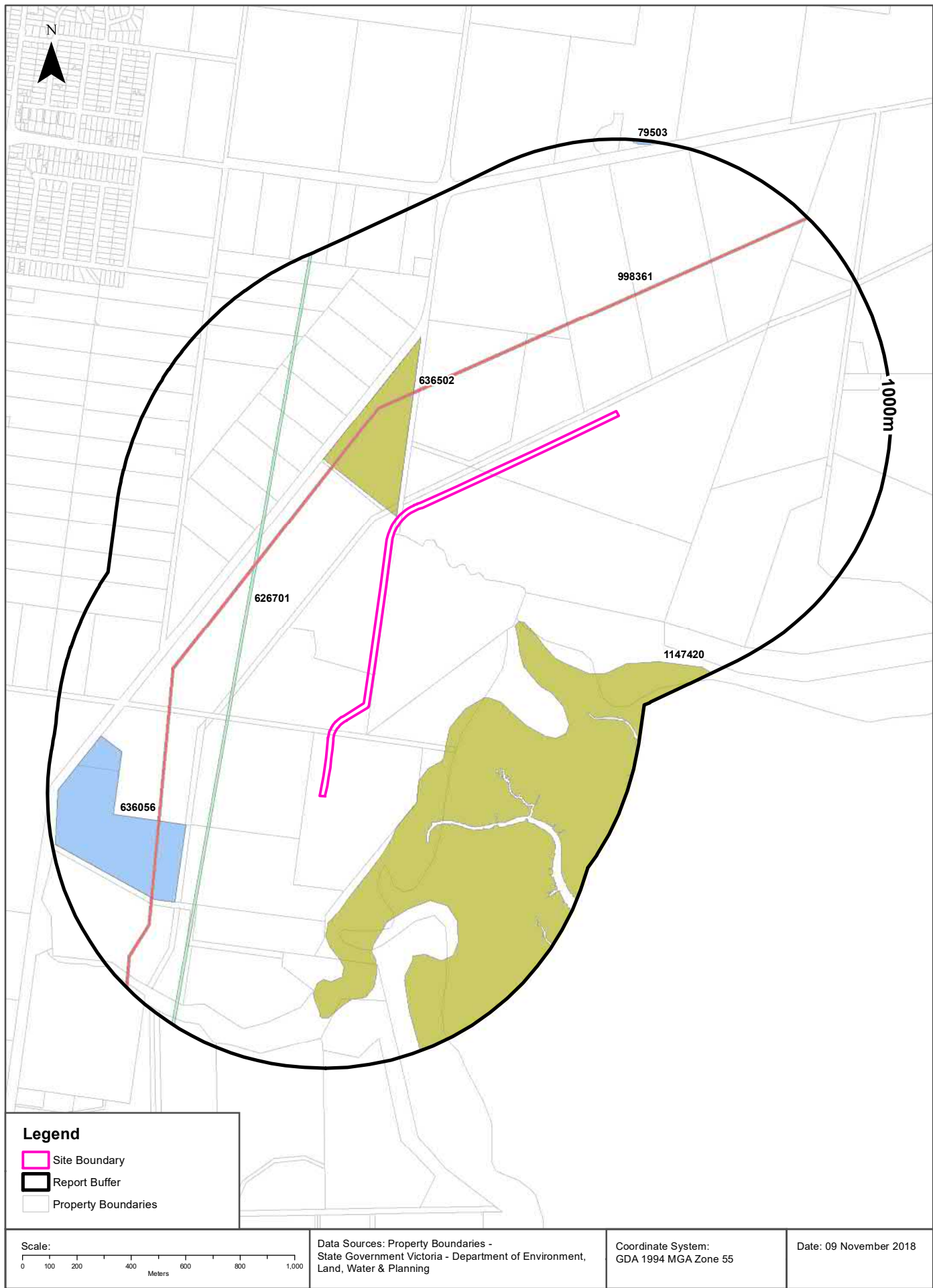
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Features of Interest

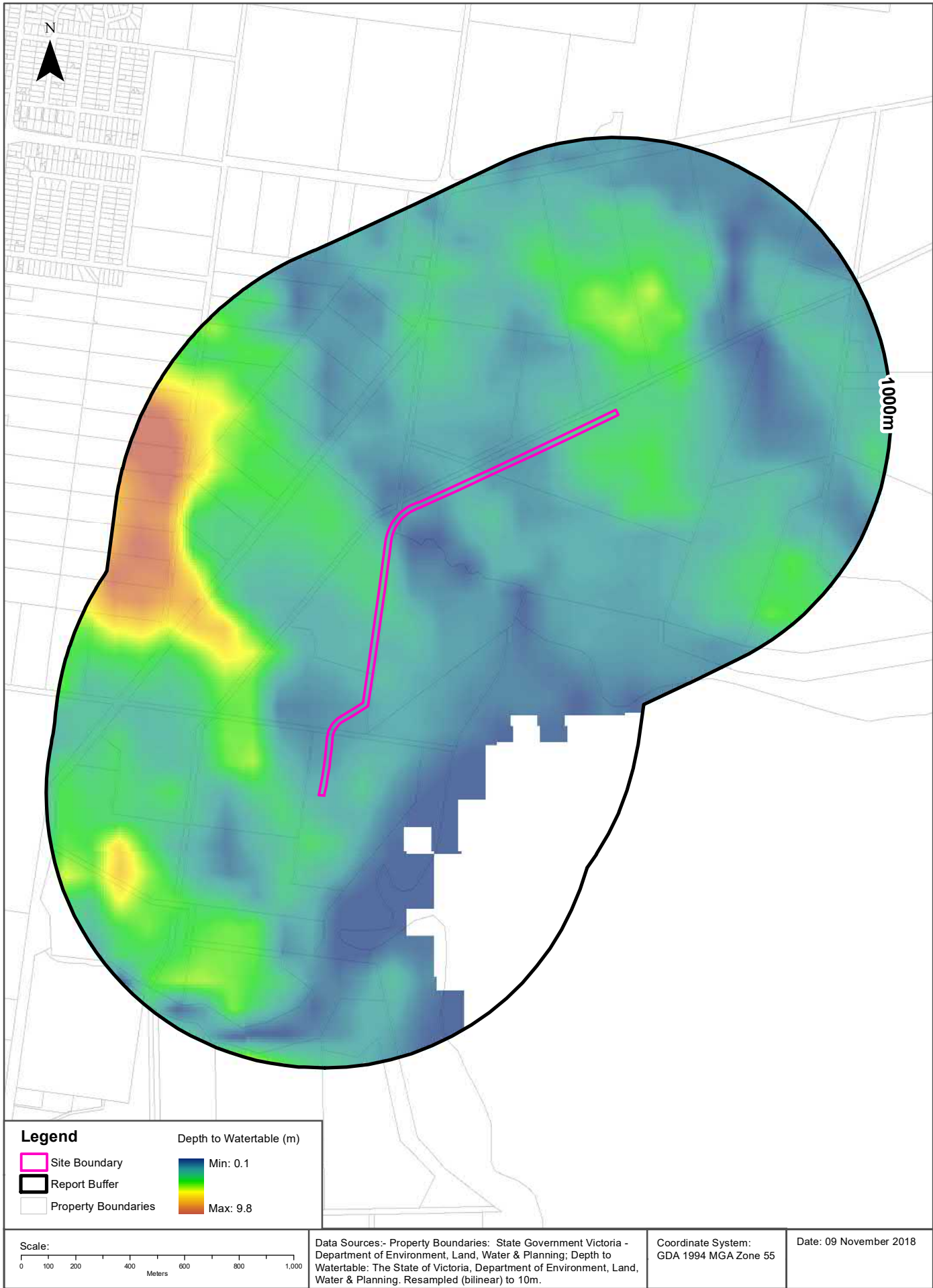
Features of Interest within the dataset buffer:

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
636502	reserve	park	Pearcedale Conservation Park	8m	North
1147420	reserve	national park	Yaringa Marine National Park	284m	South East
998361	pipeline	oil pipeline	Dutson To Hastings	300m	East
626701	power line	power transmission	Cranbourne-Tyabb	371m	North
636056	sport facility	golf course	Bembridge 9 Hole Golf Course	504m	South West
79503	sport facility	training track		984m	North East

Features of Interest Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Depth to Watertable

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





# Hydrogeology & Groundwater

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	Onsite
Fractured or fissured, extensive aquifers of low to moderate productivity	910m	
Porous, extensive aquifers of low to moderate productivity	959m	

Hydrogeology Map of Australia: Commonwealth of Australia (Geoscience Australia)  
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

## Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	100

## Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
Less than 5 metres	100

## Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
1 AHDm to 6 AHDm

## Basement Elevation

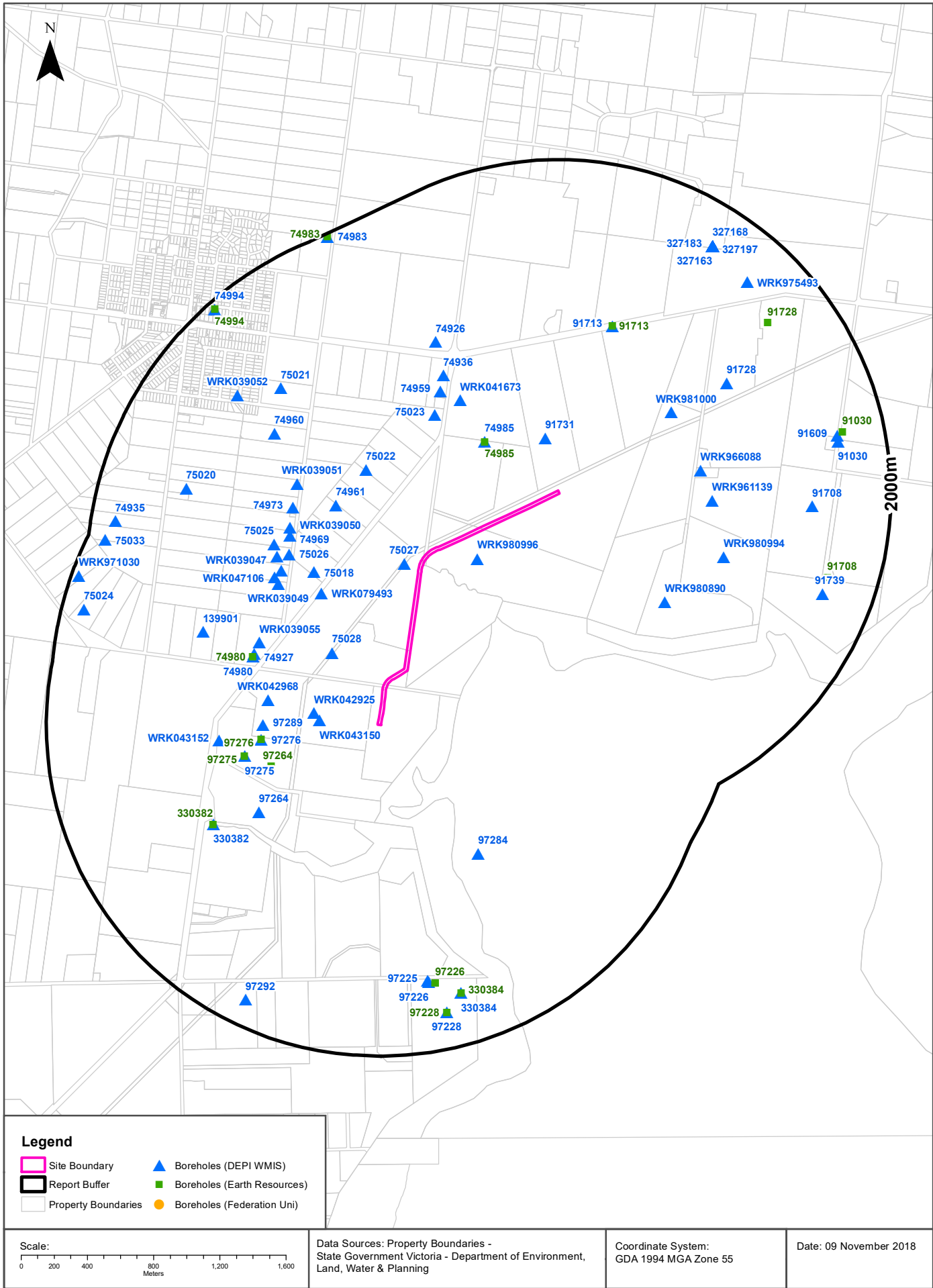
Approximate on-site Basement Elevation:

Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
-85 AHDm to -30 AHDm

Groundwater Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Boreholes (DEPI WMIS)

Boreholes from the Department of Environment and Primary Industries' Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
75027	Stock					1988-01-01	88	North West
WRK980996							143	North East
91731	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-6.40m CLAY 6.40m-7.00m FINE SLOPPY SANDY CLAY 7.00m-16.40m MARINE COARSE SAND 16.40m-20.10m MARINE SAND AND CLAY 20.10m-21.30m BROKEN SANDSTONE AND MARINE CORAL 21.30m-32.30m FINE SAND AND MARINE SILT 32.30m-33.50m DARK GREEN SILT AND SHELL 33.50m-35.90m BASALT	0.00m-33.80m INNER LINING - CASING = Galvanised Iron 33.80m-35.90m INNER LINING - SCREEN = Galvanised Iron		33.80m-35.90m Basalt	1982-12-17	324	North East
WRK043150	Domestic, Irrigation, Stock					1970-12-31	349	South West
75028	Stock					1988-01-01	365	South West
WRK042925	Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m RED CLAY 0.60m-0.90m SUBSOIL & IRONSTONE 0.90m-1.20m RED CLAY 1.20m-3.60m SANDY RED & GREY CLAY 3.60m-10.60m CLAYEY MEDIUM SAND 10.60m-14.30m BLACK CLAYEY SILT 14.30m-17.40m BLACK CLAYEY SILT AND MEDIUM SAND 17.40m-17.60m SANDSTONE 17.60m-18.20m MARINE SILT & SANDSTONE 18.20m-21.90m MARINE CLAYEY SILT & SAND 21.90m-29.30m MARINE SILT & SHELL 29.30m-48.70m MARINE SILT, SHELL & THIN LAYERS SANDSTONE 48.70m-54.20m LIMESTONE & CORAL 54.20m-54.80m BASALT	-0.01m-48.70m INNER LINING - CASING = Steel 0.00m-11.00m INNER LINING - CASING = Pvc 48.70m-54.80m INNER LINING - SCREEN = Pvc 9.00m-11.00m OUTER LINING - GRAVEL = Cement			1991-11-23	388	South West
74985	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-3.70m SAND 3.70m-8.20m MARINE AND GREY SANDY CLAY 8.20m-10.40m GREY AND BROWN SANDY CLAY 10.40m-13.10m GREY AND BROWN CLAY 13.10m-14.60m BROWN COARSE SANDY CLAY 14.60m-17.10m SLOPPY BROWN COARSE CLAYEY SAND 17.10m-19.20m MARINE SILT SAND AND SHELL 19.20m-23.50m DARK MARINE SILT 23.50m-28.30m LIGHT MARINE SILT 28.30m-30.80m LIGHT MARINE BASALTIC CLAY 30.80m-32.30m BASALT	0.00m-30.80m INNER LINING - CASING = Galvanised Iron 30.80m-32.30m INNER LINING - SCREEN = Galvanised Iron 29.90m-0.00m OUTER LINING - GRAVEL = Seal		30.80m-32.30m Basalt	1982-12-06	457	North
WRK079493	Irrigation	0.00m-0.30m SOIL 0.30m-12.00m CLAY 12.00m-57.50m WESTERN PORT GROUP 57.50m-60.00m BASEMENT	0.00m-49.00m INNER LINING - CASING = Pvc 49.00m-60.00m INNER LINING - SCREEN = Stainless Steel 8.00m-49.00m OUTER LINING - GRAVEL = Cement			2014-06-03	560	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
74961	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SUB SOIL 0.90m-2.70m CLAY 2.70m-5.20m FINE SANDY SLOPPY CLAY 5.20m-11.00m SLOPPY FINE CLAYEY SAND 11.00m-13.40m COARSE SANDY BLACK CLAY 13.40m-29.50m MARINE CLAY AND SHELL 29.50m-30.10m HARD SANDSTONE 30.10m-38.70m SANDSTONE WITH LAYERS OF SHELL	0.00m-30.20m INNER LINING - CASING = Galvanised Iron			1976-06-09	614	North West
75018	Domestic					1988-01-01	620	West
75022	Stock					1988-01-01	622	North West
WRK042968	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-1.20m SAND 1.20m-8.00m SANDY CLAY 8.00m-12.00m DARK SILTY CLAY 12.00m-27.00m MARL 27.00m-29.70m SOFT MARINE SEDIMENT 29.70m-51.30m MARL 51.30m-52.00m LIMESTONE 52.00m-53.00m LIMESTONE & CORAL 53.00m-58.00m SND 58.00m-58.50m COAL AND SILT	0.30m-51.50m INNER LINING - CASING = Galvanised Iron 51.50m-58.00m INNER LINING - SCREEN = Galvanised Iron 51.00m-0.00m OUTER LINING - GRAVEL = Seal			1997-10-01	676	South West
97289	Stock					1988-01-01	690	South West
97276	Domestic	0.00m-0.60m SURFACE SOIL 0.60m-3.00m BROWN SAND 3.00m-7.90m GREY & BROWN SANDY CLAY 7.90m-8.50m GREY CLAY 8.50m-9.10m BROWN CLAY & IRONSTONE 9.10m-23.70m MARINE SILT CLAY & SHELL 23.70m-57.30m MARINE SILT & SHELL 57.30m-63.40m CORAL 63.40m-64.00m CORAL & SAND	0.00m-57.30m INNER LINING - CASING = Not Known 57.30m-64.00m INNER LINING - SCREEN = Not Known		57.30m-64.00m Limestone	1988-01-10	707	South West
75023	Domestic, Stock					1988-01-01	733	North
WRK041673	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-6.40m CLAY 6.40m-7.00m SLOPPY FINE SANDY CLAY 7.00m-16.40m MARINE COARSE SAND 16.40m-20.10m MARINE SAND AND CLAY 20.10m-21.30m BROKEN SANDSTONE AND MARINE CORAL 21.30m-32.30m FINE SAND AND MARINE SILT 32.30m-33.50m DARK GREEN SILT AND SHELL 33.50m-35.00m BASALT	0.00m-33.00m INNER LINING - CASING = Galvanised Iron 33.00m-35.00m INNER LINING - SCREEN = Galvanised Iron		33.00m-35.00m Basalt	1982-12-20	747	North
75026	Domestic					1988-01-01	783	West
WRK039055	Domestic, Irrigation, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m CLAY AND IRONSTONE 0.60m-2.40m RED CLAY 2.40m-3.40m SANDY CLAY 3.40m-10.40m CLAYEY SAND AND RED CLAY 10.40m-12.10m SANDY MOTTLEY CLAY AND IRONSTONE 12.10m-14.60m DARK MARINE CLAY AND COARSE SAND 14.60m-16.70m DARK MARINE SILTY CLAY 16.70m-18.90m MARINE SILTY CLAY AND SAND 18.90m-26.80m MARINE SILT ROCK AND SHELL 26.80m-43.20m MARINE SILT AND SHELL 43.20m-46.00m GREEN AND GREY SILT AND SHELL 46.00m-57.80m CORAL	0.00m-46.00m INNER LINING - CASING = Mild Steel 46.00m-55.00m INNER LINING - SCREEN = Mild Steel		46.00m-55.00m Limestone	1989-10-30	791	West
74969	Commercial, Domestic, Irrigation, Stock	40.84m-48.40m CORAL AND SMALL SHELLS AND SAND	0.00m-41.65m INNER LINING - CASING = Not Known 42.98m-50.59m INNER LINING - SCREEN = Not Known 41.45m-0.00m OUTER LINING - GRAVEL = Seal		42.98m-50.59m Limestone	1978-04-10	800	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
74927	Domestic, Domestic & Stock					1970-12-31	803	West
74980	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-1.20m SAND AND IRONSTONE PIECES 1.20m-4.90m CLAYEY YELLOW SAND 4.90m-8.20m SANDY YELLOW CLAY 8.20m-12.80m SLOPPEY GREY SANDY CLAY 12.80m-16.50m STICKY MARINE SANDY CLAY 16.50m-43.30m MARINE SILT 43.30m-43.90m SOFT MARINE LIMESTONE AND SHELL 43.90m-50.30m HARD SANDSTONE AND LIMESTONE WITH LAYERS OF SHELLY CORAL	0.00m-43.60m INNER LINING - CASING = Galvanised Iron 43.60m-50.30m INNER LINING - SCREEN = Galvanised Iron		43.60m-50.30m Limestone	1979-11-14	806	West
WRK039050	Commercial, Domestic, Irrigation, Stock	0.00m-0.61m DARK LOAM SOIL 0.61m-1.52m GREY BROWN SANDS 1.52m-3.66m REDDISH AND GREY CLAY 3.66m-7.62m GREY REDDISH AND SANDY CLAY 7.62m-12.80m REDDISH SAND 12.80m-18.90m DARD FINE SAND BASALT 18.90m-22.86m DARK FINE SANDY CLAY 22.86m-29.87m PASTY GREENY GREY CLAY STONES 29.87m-38.10m SHELLY CLAY 38.10m-50.59m FUCKING CRAP	0.00m-40.89m INNER LINING - CASING = Not Known 40.23m-50.59m INNER LINING - SCREEN = Not Known 39.62m-0.00m OUTER LINING - GRAVEL = Seal			1974-08-22	812	West
WRK039048	Irrigation	0.30m-0.91m SANDY LOAM 0.91m-7.01m SANDY CLAYS 7.01m-8.23m RED SAND STONE 8.23m-10.36m YELLOW SANDSTONE 10.36m-12.19m COURSE SAND 12.19m-35.66m SEA SLIME 35.66m-41.76m SEA SLIME SHELLY 41.76m-53.90m CORAL	0.00m-53.90m INNER LINING - CASESCRN = Not Known			1970-12-07	818	West
97275	Domestic	0.00m-0.30m SURFACE SOIL 0.30m-1.80m GREY SAND 1.80m-8.80m GREY & BROWN CLAY 8.80m-9.10m GREY CLAY 9.10m-10.70m SLOPPY SANDY GREY CLAY 10.70m-11.60m GREY CLAY 11.60m-12.50m MARINE SILT 12.50m-14.90m BROKEN MARINE ROCK 14.90m-15.20m STICKY MARINE CLAY	0.00m-12.50m INNER LINING - CASING = Galvanised Iron 12.50m-14.90m INNER LINING - SCREEN = Galvanised Iron		12.50m-14.90m Marl	1987-11-06	823	South West
WRK039049	Irrigation	0.00m-0.61m SUB SOIL SANDY LOAM 0.61m-4.27m YELLOW CLAY 4.27m-7.32m SANDY CLAYS 7.32m-8.23m RED SAND (WATER) 8.23m-12.19m YELLOW SAND STONE 12.19m-26.21m SEA SLIME BLACK AND MILK STONES 26.21m-40.54m SEA SLIME GREY AND SHEDDED GRAVEL 40.54m-47.50m CORAL AND SEA SHELL	0.00m-47.50m INNER LINING - CASESCRN = Not Known			1971-10-16	824	West
WRK981000							829	North East
74973	Domestic, Stock	0.00m-0.50m TOP SOIL 0.50m-3.00m WHITE FINE SAND 3.00m-14.00m VOLCANIC CLAY 14.00m-18.00m DARK GREY CLAY 18.00m-25.00m BROWN COAL AND WOOD 25.00m-28.80m SOFT MUDSTONE	0.00m-18.00m INNER LINING - CASING = Pvc 18.00m-28.80m INNER LINING - SCREEN = Pvc		18.00m-28.80m Coal	1979-06-26	837	North West
74959	Domestic, Stock	0.00m-0.91m SANDY SOIL 0.91m-1.37m COFFEE ROCK 1.37m-3.66m GREY SANDY CLAY 3.66m-10.36m PINKY SAND CLAY 10.36m-16.46m IRON STONE BOULDERS 16.46m-22.86m BROWN PASTY CLAY 22.86m-34.44m BROWN COAL AND WOOD 34.44m-39.01m MEDIUM BROWN SAND 39.01m-44.50m BROWN PASTY CLAY AND WOOD 44.50m-46.02m LANUTATED GRANITE AND SAND 46.02m-0.00m MUDSTONE CLAY	0.00m-35.63m INNER LINING - CASING = Steel 34.44m-39.01m INNER LINING - SCREEN = Steel 44.50m-46.02m INNER LINING - SCREEN = Wire W S/Steel 33.37m-0.00m OUTER LINING - GRAVEL = Seal			1976-05-27	847	North



Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK047106		0.00m-2.00m TOPSOIL 2.00m-8.00m COFFE ROCK 8.00m-16.00m RED CLAY 16.00m-33.00m GREY CLAY 33.00m-53.00m MEDIUM MUDSTONE 53.00m-54.00m HARD MUD STONE	0.00m-36.00m INNER LINING - CASING = Pvc 36.00m-54.00m INNER LINING - SCREEN = Pvc 0.00m-33.00m OUTER LINING - GRAVEL = Seal			2008-06-14	855	West
WRK039047	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-0.91m CLAY 0.91m-6.40m RED SANDY CLAY 6.40m-11.28m SLOPPY RED SANDY CLAY 11.28m-11.89m YELLOW SAND WITH SANDSTONE PIECES 11.89m-12.80m IGNITE AND CLAY 12.80m-16.46m BLACK CLAY 16.46m-18.90m STICKY MARINE CLAY WITH SAND 18.90m-22.86m MARINE CLAY SILT LITTLE SHELL WITH ROCK PIECES 22.86m-38.10m MARINE SILT LITTLE SHELL 38.10m-39.62m DARK MARINE SILT AND SHELL 39.62m-40.54m LIMESTONE SHELL 40.54m-42.67m CORALY SHELL 42.67m-42.98m BROWN COAL 42.98m-46.33m HARD SANDSTONE 46.33m-51.82m LAYERS OF ROCK AND SHELL LITTLE SAND 51.82m-52.10m LITTLE SAND AND SHELL MUDSTONE	0.00m-39.62m INNER LINING - CASING = Not Known 39.62m-52.12m INNER LINING - SCREEN = Not Known			1970-12-07	855	West
WRK966088							861	North East
WRK039051	Irrigation	0.00m-0.61m SAND LOAM 0.61m-34.29m FATTY SAND 34.29m-41.14m CORAL THICK HEAVY AND HARD	0.00m-34.90m INNER LINING - CASING = Steel 34.44m-41.14m INNER LINING - SCREEN = Steel			1975-03-25	880	North West
75025	Domestic					1988-01-01	882	West
97264	Domestic, Stock	0.00m-1.40m SANDY LOAM 1.40m-1.70m COFFEE ROCK 1.70m-7.00m HARD YELLOW CLAY 7.00m-9.20m LIGHT GREY CLAY 9.20m-16.00m WEATHERED CLAY 16.00m-19.15m SHELL AND WEATHERED ROCK	0.00m-16.00m INNER LINING - CASING = Galvanised Iron 16.00m-19.15m INNER LINING - SCREEN = Galvanised Iron		16.00m-19.15m Marl	1984-01-17	888	South West
WRK980890							912	East
WRK961139							921	East
74936	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-6.40m CLAY 6.40m-7.92m CLAY WITH IRONSTONE PIECES 7.92m-8.53m MOTTLEY CLAY 8.53m-9.14m FINE MARBLEY SANDSTONE 9.14m-10.06m BROKEN LIGNITE 10.06m-19.20m LIGNITE BROWN CLAY 19.20m-24.99m GREY MUDSTONE 24.99m-25.60m GREEN MUDSTONE 25.60m-27.43m GREY MUDSTONE	0.00m-23.16m INNER LINING - CASING = Not Known 25.29m-25.90m INNER LINING - SCREEN = Not Known			1972-01-08	926	North
WRK043152	Irrigation					1970-12-31	960	South West
97284	Domestic	0.00m-0.60m SURFACE SOIL 0.60m-2.00m BROWN SAND 2.00m-4.50m GREY AND BROWN SANDY CLAY 4.50m-11.60m BROWN CLAY AND IRONSTONE 11.60m-19.80m MARINE SILT AND CLAY 19.80m-41.50m MARINE SILT 41.50m-43.20m MARINE SILT AND SHELL 43.20m-44.80m LIMESTONE 44.80m-47.50m CORAL 47.50m-49.00m CORAL AND SAND 49.00m-49.30m BROWN COAL 49.30m-50.20m GREY MUDSTONE	43.00m-43.00m INNER LINING - CASING = Pvc 43.00m-49.00m INNER LINING - SCREEN = Not Known		43.00m-49.00m Limestone	1988-10-13	974	South
91713	Not Known	0.00m-0.55m TOPSOIL 0.55m-3.00m MOTTLED CLAY 3.00m-5.30m GREY SANDY CLAY 5.30m-6.00m SAND 6.00m-19.00m GREY SANDY CLAY 19.00m-0.00m MUDSTONE				1983-02-02	1047	North East
WRK980994							1061	East
74926	Domestic, Stock					1970-12-31	1128	North

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
139901	Domestic	0.00m-0.30m TOP SOIL 0.30m-19.00m CLAY 19.00m-43.00m MARL & SANDS 43.00m-43.30m CAP ROCK 43.30m-48.00m LIMESTONE & SAND	0.00m-43.00m INNER LINING - CASING = Pvc 43.00m-48.00m INNER LINING - SCREEN = Pvc			1999-02-11	1135	West
330382	Non Groundwater					1919-12-31	1158	South West
74960	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-4.60m SANDY CLAY 4.60m-12.20m FINE SANDY CLAY 12.20m-13.10m GREY CLAY 13.10m-16.10m MARINE CLAY WITH COARSE SAND 16.10m-20.10m MARINE SILT AND SHELL WITH PIECES HARD SANDSTONE 20.10m-20.70m LIMESTONE 20.70m-21.90m CLAYEY LIMESTONE AND SHELL 21.90m-23.50m MARINE CLAY AND SHELL 23.50m-27.40m LIGNITE				1976-03-26	1169	North West
91728	Domestic, Stock	0.00m-0.30m DARK SOIL 0.30m-0.61m GREY BRITTLE SAND 0.61m-6.70m REDDISH GREY BROWN CLAY 6.70m-13.41m FATTY SAND 13.41m-20.73m DARK MARL 20.73m-22.55m SHELLY MARL 22.55m-28.04m CONSOLIDATED SAND SHELL 28.04m-29.87m HARD CORAL 29.87m-36.58m HARD BASALT	0.00m-33.48m INNER LINING - CASING = Galvanised Iron 33.48m-36.58m INNER LINING - SCREEN = Galvanised Iron		33.48m-36.58m Basalt	1985-09-21	1206	North East
75021	Stock					1988-01-01	1330	North West
75020	Stock					1988-01-01	1479	West
WRK039052	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-2.40m SAND 2.40m-7.60m FINE SANDY CLAY 7.60m-13.40m SANDY CLAY 13.40m-17.70m MARINE SILT 17.70m-19.80m MARINE SILT AND SHELL 19.80m-25.00m HARD SANDSTONE LIMESTONE WITH LAYERS OF SHELLY CORAL	0.00m-19.80m INNER LINING - CASING = Galvanised Iron 19.20m-25.00m INNER LINING - CASING = Pvc 19.20m-25.00m INNER LINING - SCREEN = Galvanised Iron 19.20m-0.00m OUTER LINING - GRAVEL = Seal			1976-04-02	1487	North West
91708	Domestic, Stock	0.00m-3.00m BROWN AND RED CLAY 3.00m-6.00m SANDY CLAY 6.00m-9.00m SAND AND COAL 9.00m-27.00m MEDIUM SAND, GREY CLAY 27.00m-50.00m SAND AND SILTY CLAY, LIMESTONE, SHELLY 50.00m-53.00m LIMESTONE	0.00m-52.43m INNER LINING - CASING = Pvc Class 9 52.43m-53.00m INNER LINING - SCREEN = Pvc Class 9		52.43m-53.00m Limestone	1983-12-19	1526	East
97225	Observation, State Observation Network		0.00m-62.00m INNER LINING - CASING = Not Known 62.00m-64.00m INNER LINING - SCREEN = Not Known	Date/time: 2016-04-27 1230 Quality: 43 WLMP: 3.71m DBNS: 3.62m RWL: -0.24mAHD		1978-08-14	1569	South
97226	Observation, State Observation Network		0.00m-16.00m INNER LINING - CASING = Not Known 16.00m-22.00m INNER LINING - SCREEN = Not Known	Date/time: 2018-08-01 1005 Quality: 43 WLMP: 3.31m DBNS: 3.17m RWL: 0.26mAHD	16.00m-22.00m Gravel	1978-09-25	1578	South
330384	Non Groundwater					1919-12-31	1688	South
WRK975493	Domestic & Stock	0.50m-8.00m ORANGE & GREY CLAY 8.00m-10.00m ORANGE & GREY SANDY CLAY 10.00m-15.50m DARK GREY CLAY & SAND	0.40m-12.00m INNER LINING - CASING = Pvc 12.00m-15.50m INNER LINING - SCREEN = Pvc 0.50m-4.00m OUTER LINING - GRAVEL = Cement			2006-10-17	1699	North East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
91739	Domestic, Stock	0.00m-0.20m TOPSOIL 0.20m-1.00m SANDY LOAM 1.00m-3.00m RED AND ORANGE SANDY CLAY 3.00m-12.00m YELLOW AND GREY SANDY CLAY 12.00m-14.00m FINE SAND 14.00m-17.50m LIGNIOUS CLAY 17.50m-29.00m GREEN SILTY CLAY 29.00m-51.65m GREEN SILTY CLAY AND SHELLS 51.65m-64.00m BASALT	0.00m-51.65m INNER LINING - CASING = Galvanised Iron 51.65m-64.00m INNER LINING - SCREEN = Galvanised Iron		51.65m-64.00m Basalt	1986-02-24	1700	East
91030	Observation, State Observation Network		0.00m-22.25m INNER LINING - CASING = Not Known 22.25m-50.29m INNER LINING - SCREEN = Not Known	Date/time: 2016-04-27 1143 Quality: 43 WLMP: 4.26m DBNS: 3.62m RWL: 1.73mAHD		1969-10-06	1710	East
91609	Stock	0.00m-0.30m SURFACE SOIL 0.30m-7.31m SANDY CLAY 7.31m-15.24m SLOPPY CLAYEY SAND 15.24m-18.29m BLACK SLOPPY CLAYEY SAND 18.29m-27.13m MARINE CLAY SILT AND SHELL 27.13m-27.74m SCORIA SHELL 27.74m-50.59m MARINE SILT CLAY AND SHELL 50.59m-51.21m HARD FINE SANDSTONE 51.21m-53.03m LAYERS ROCK CORAL SHELL 53.03m-54.80m BASALT	0.00m-50.59m INNER LINING - CASING = Not Known 51.20m-54.86m INNER LINING - SCREEN = Not Known			1973-01-15	1712	East
327158	Non Groundwater					1952-12-31	1747	North East
327170	Non Groundwater					1953-12-31	1747	North East
327193	Non Groundwater					1964-12-31	1747	North East
327184	Non Groundwater					1964-12-31	1747	North East
327178	Non Groundwater					1964-12-31	1747	North East
327172	Non Groundwater					1953-12-31	1747	North East
327199	Non Groundwater					1964-12-31	1747	North East
327187	Non Groundwater					1964-12-31	1747	North East
327167	Non Groundwater					1953-12-31	1747	North East
327179	Non Groundwater					1964-12-31	1747	North East
327173	Non Groundwater					1953-12-31	1747	North East
327190	Non Groundwater					1964-12-31	1747	North East
327196	Non Groundwater					1964-12-31	1747	North East
327168	Non Groundwater					1953-12-31	1747	North East
327162	Non Groundwater					1953-12-31	1747	North East
327185	Non Groundwater					1964-12-31	1747	North East
327165	Non Groundwater					1953-12-31	1747	North East
327188	Non Groundwater					1964-12-31	1747	North East
327182	Non Groundwater					1964-12-31	1747	North East
327171	Non Groundwater					1953-12-31	1747	North East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
327194	Non Groundwater					1964-12-31	1747	North East
327159	Non Groundwater					1953-12-31	1747	North East
327191	Non Groundwater					1964-12-31	1747	North East
327164	Non Groundwater					1953-12-31	1747	North East
327176	Non Groundwater					1964-12-31	1747	North East
327161	Non Groundwater					1953-12-31	1747	North East
327174	Non Groundwater					1964-12-31	1747	North East
327195	Non Groundwater					1964-12-31	1747	North East
327181	Non Groundwater					1964-12-31	1747	North East
327169	Non Groundwater					1953-12-31	1747	North East
327192	Non Groundwater					1964-12-31	1747	North East
327175	Non Groundwater					1964-12-31	1747	North East
327177	Non Groundwater					1964-12-31	1747	North East
327160	Non Groundwater					1953-12-31	1747	North East
327186	Non Groundwater					1964-12-31	1747	North East
327166	Non Groundwater					1953-12-31	1747	North East
327180	Non Groundwater					1964-12-31	1747	North East
327163	Non Groundwater					1953-12-31	1747	North East
327157	Non Groundwater					1952-12-31	1747	North East
327183	Non Groundwater					1964-12-31	1747	North East
327197	Non Groundwater					1964-12-31	1747	North East
327189	Non Groundwater					1964-12-31	1747	North East
327198	Non Groundwater					1964-12-31	1747	North East
97228	Not Known		0.00m-56.00m INNER LINING - CASING = Not Known 56.00m-58.00m INNER LINING - SCREEN = Not Known			1978-10-31	1778	South
97292	Domestic, Stock					1988-01-01	1840	South West
74935	Domestic, Stock	0.00m-0.61m SURFACE SOIL 0.61m-1.22m SAND 1.22m-5.49m CLAY 5.49m-8.53m GREY SANDY CLAY 8.53m-14.33m BROWN SLOPPY CLAYEY SAND 14.33m-42.37m MARINE CLAY SHELL AND SILT 42.37m-44.50m SOFT LIMESTONE SHELLEY 44.50m-50.90m LIMESTONE SANDSTONE LAYERS SHELL	0.00m-44.81m INNER LINING - CASING = Not Known			1971-09-14	1850	West
75024	Domestic					1988-01-01	1865	West
75033	Domestic					1988-01-01	1895	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
74994	Not Known	0.00m-0.45m TOPSOIL 0.45m-2.00m GREY CLAY 2.00m-8.00m MOTTLED CLAY 8.00m-10.50m LIGHT GREY SANDY CLAY 10.50m-24.00m LIGNIOUS CLAY AND LAYERS OF WOOD AND COAL 24.00m-0.00m SOFT MUDSTONE	0.00m-21.00m INNER LINING - CASING = Pvc 21.00m-24.00m INNER LINING - SCREEN = Pvc		21.00m-24.00m Coal	1985-01-23	1952	North West
WRK971030	Domestic & Stock	0.00m-1.30m TOPSOIL SANDY 1.30m-5.50m CLAY 5.50m-7.00m CLAY 7.00m-20.00m CLAY 20.00m-45.00m SHELL 45.00m-49.00m LIMESTONE	4.50m-45.00m INNER LINING - CASING = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-45.00m OUTER LINING - GRAVEL = Gravel			2006-02-15	1956	West
74983	Not Known	0.00m-0.40m TOP SOIL 0.40m-1.00m GREY CLAY 1.00m-3.00m MOTTLED CLAY 3.00m-7.00m YELLOW AND WHITE CLAY 7.00m-9.00m SOFT MUDSTONE 9.00m-18.50m MUDSTONE				1982-02-04	1982	North

Boreholes WMIS Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Direct
74985		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		06/12/1982	32.30		100	458	North
97264		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		17/01/1984	19.15		100	689	South West
97276		Private Individual/Corporation	Domestic water supply	Percussion (cable)		10/01/1988	64.00		100	708	South West
74980		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		14/11/1979	50.30		100	807	West
97275		Private Individual/Corporation	Domestic water supply	Percussion (cable)		06/11/1987	15.20		100	825	South West
91713		Private Individual/Corporation		Percussion (cable)	Abandoned	02/02/1983	19.00		100	1048	North East
330382		Department of Manufacturing & Industry Development				31/12/1919	94.18		300	1159	South West
97225		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		14/08/1978	64.30	3.38	300	1591	South
97226		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		25/09/1978	58.00	3.43	300	1591	South
91728		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		21/09/1985	36.58		100	1623	North East
330384		Department of Manufacturing & Industry Development				31/12/1919	80.16		300	1686	South
91708		Private Individual/Corporation	Domestic & Stock water supply	Rotary (diamond/drag bit)		19/12/1983	53.00		100	1694	East
91030		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		06/10/1969	50.29		100	1747	East
97228		Department of Manufacturing & Industry Development		Percussion (cable)	Abandoned	31/10/1978	74.00		300	1777	South
74994		Private Individual/Corporation	Irrigation	Percussion (cable)		23/01/1985	24.00		100	1954	North West
74983		Private Individual/Corporation		Percussion (cable)	Abandoned	04/02/1982	18.50		100	1983	North

Boreholes Earth Resources Data Source: © The State of Victoria, Department of Economic Development, Jobs, Transport and Resources 2015. Creative Commons Attribution 3.0 Australia

## Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Direct
N/A	No records within buffer						

Boreholes FedUni Data Source: © Federation University Australia

## Historical Mining Activity - Shafts

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Historical Mining Activity - Shafts

Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

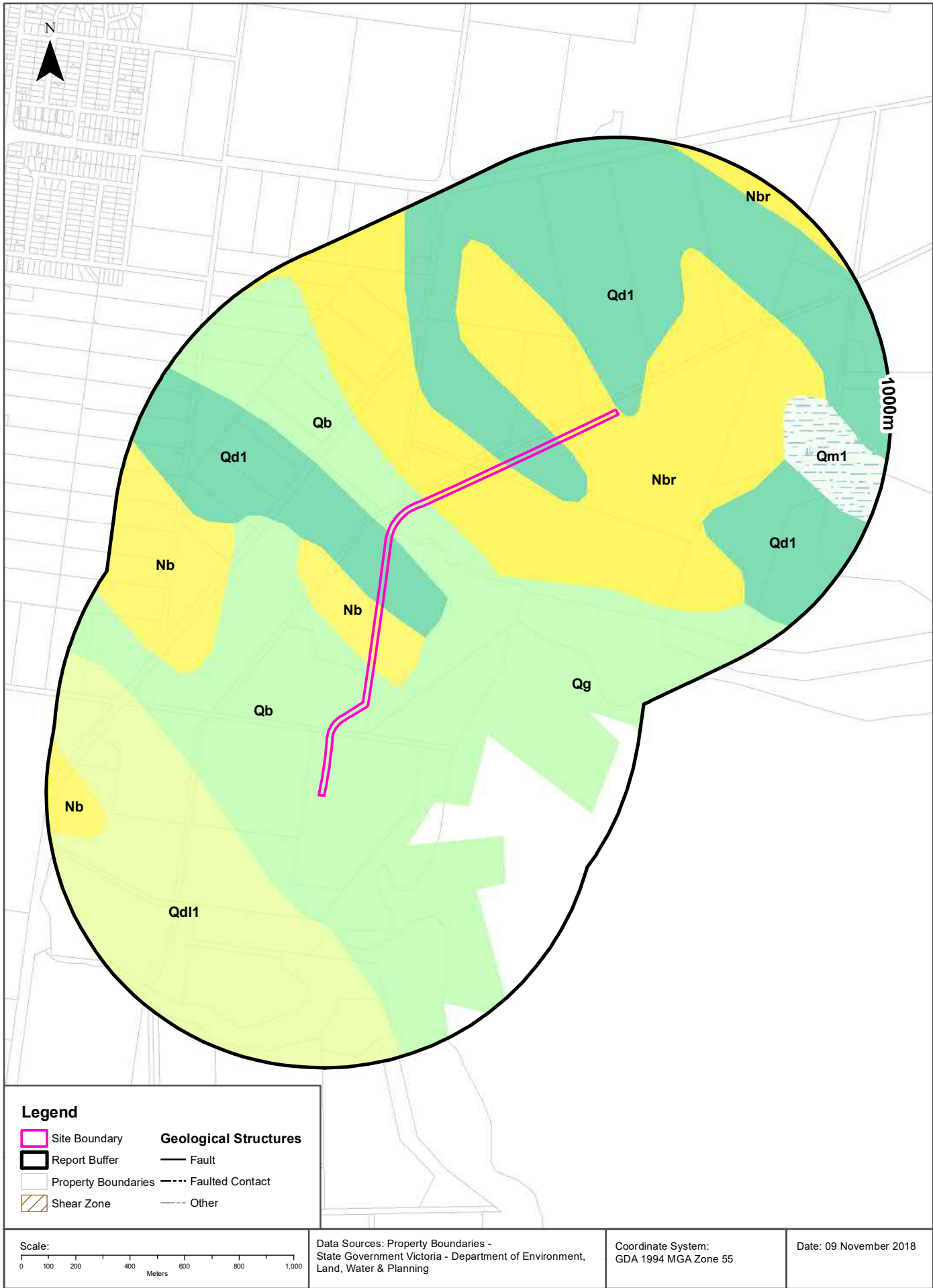
Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Historical Mining Activity Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources

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# Geology 1:250,000

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Geological Units

What are the Geological Units onsite?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nb	Brighton Group( Nb): generic	Gravel, sand, silt: variably calcareous to ferruginous sandstones and coquinas; marine to nonmarine	Miocene to Pliocene	silt material (significant); sand (significant); gravel material (significant)	1:250,000
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qb	alluvium and colluvium( Qb): generic	Sand, silt, clay, gravel, diamictite; alluvial and colluvial deposits	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant); gravel material (significant)	1:250,000
Qd1	inland dune deposits (Qd1): generic	Sand, silt, clay: friable to consolidated; well sorted; includes both lunette deposits and deposits of longitudinal dunes	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant)	1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nb	Brighton Group( Nb): generic	Gravel, sand, silt: variably calcareous to ferruginous sandstones and coquinas; marine to nonmarine	Miocene to Pliocene	silt material (significant); sand (significant); gravel material (significant)	1:250,000
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qb	alluvium and colluvium( Qb): generic	Sand, silt, clay, gravel, diamictite; alluvial and colluvial deposits	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant); gravel material (significant)	1:250,000
Qd1	inland dune deposits (Qd1): generic	Sand, silt, clay: friable to consolidated; well sorted; includes both lunette deposits and deposits of longitudinal dunes	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qd11	coastal dune deposits (Qd11): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	1:250,000



Symbol	Name	Description	Geological Age	Lithology	Dataset
Qg	coastal lagoon deposits (Qg): generic	Silt, clay: dark grey to black; variably consolidated	Holocene to Holocene	silt material (significant); clay lithology (significant)	1:250,000
Qm1	swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	Pleistocene to Holocene	mud (major proportion); silt material (significant); clay lithology (significant); peat (minor proportion)	1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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# Geology

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Geological Structures

What are the Geological Faults or Faulted Contacts onsite?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

What are the Dykes, Marker Beds and Veins onsite?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones onsite (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

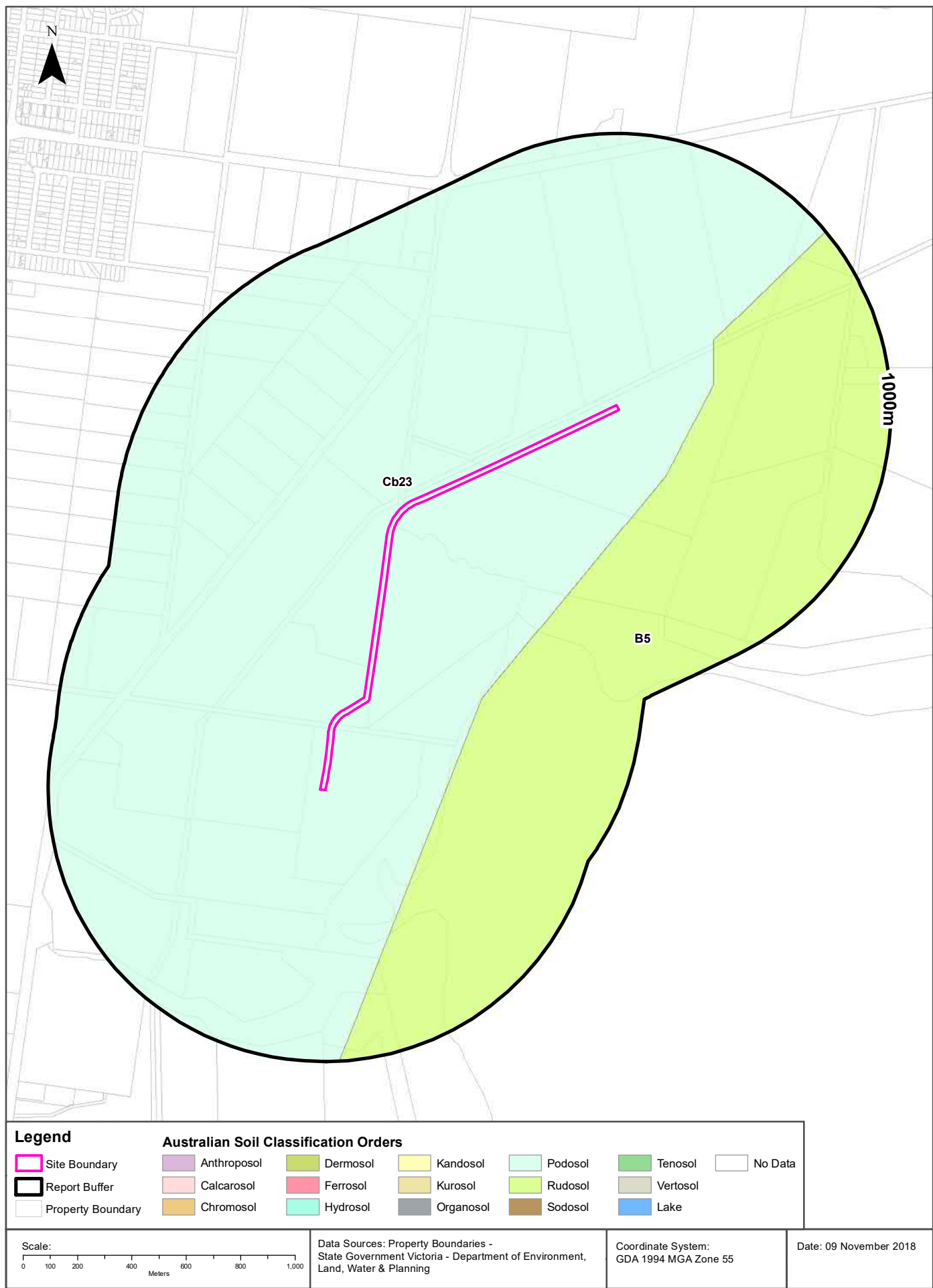
What are the Dykes, Marker Beds and Veins within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones within the dataset buffer (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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## Soil Landscapes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Atlas of Australian Soils

Australian soil types within the dataset buffer:

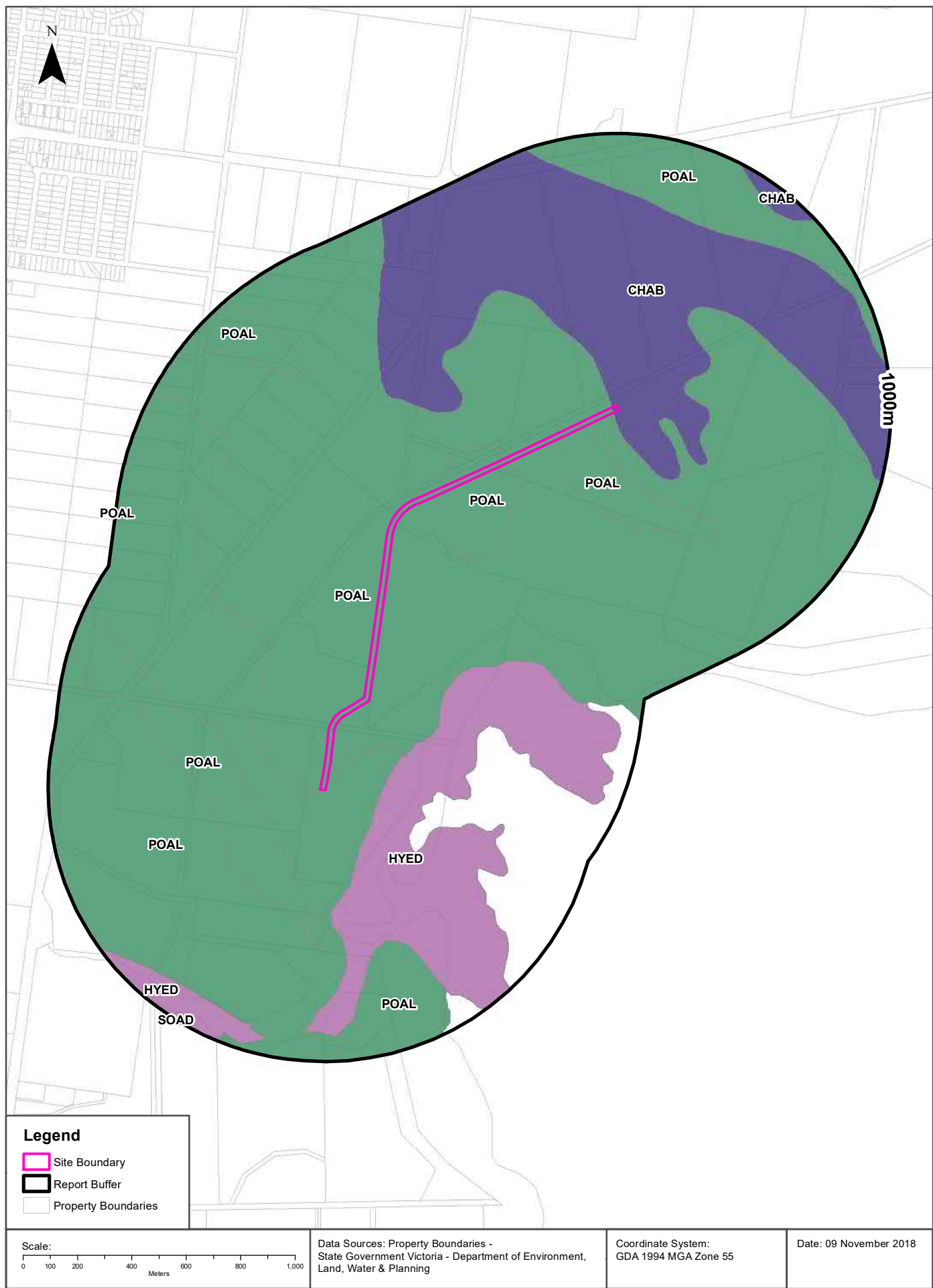
Symbol	Soil Order	Map Unit Description	Distance
Cb23	Podsol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests. and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m
B5	Rudosol	Coastal plains with dunes, swamps, and lakes: plains and dunes of siliceous sands (Uc1.2) and silty soils (Um1) and plains of clay soils (Uf) and (Ug); some terrace remnants where the plains merge with the stream valleys of dark, deep, porous loamy soils (Um6.12) on the lower terraces, and hard alkaline soils (Dr2.23) on the higher terraces.	263m

Atlas of Australian Soils: CSIRO

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# Victorian Soil Type Mapping

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





## Soil Landscapes

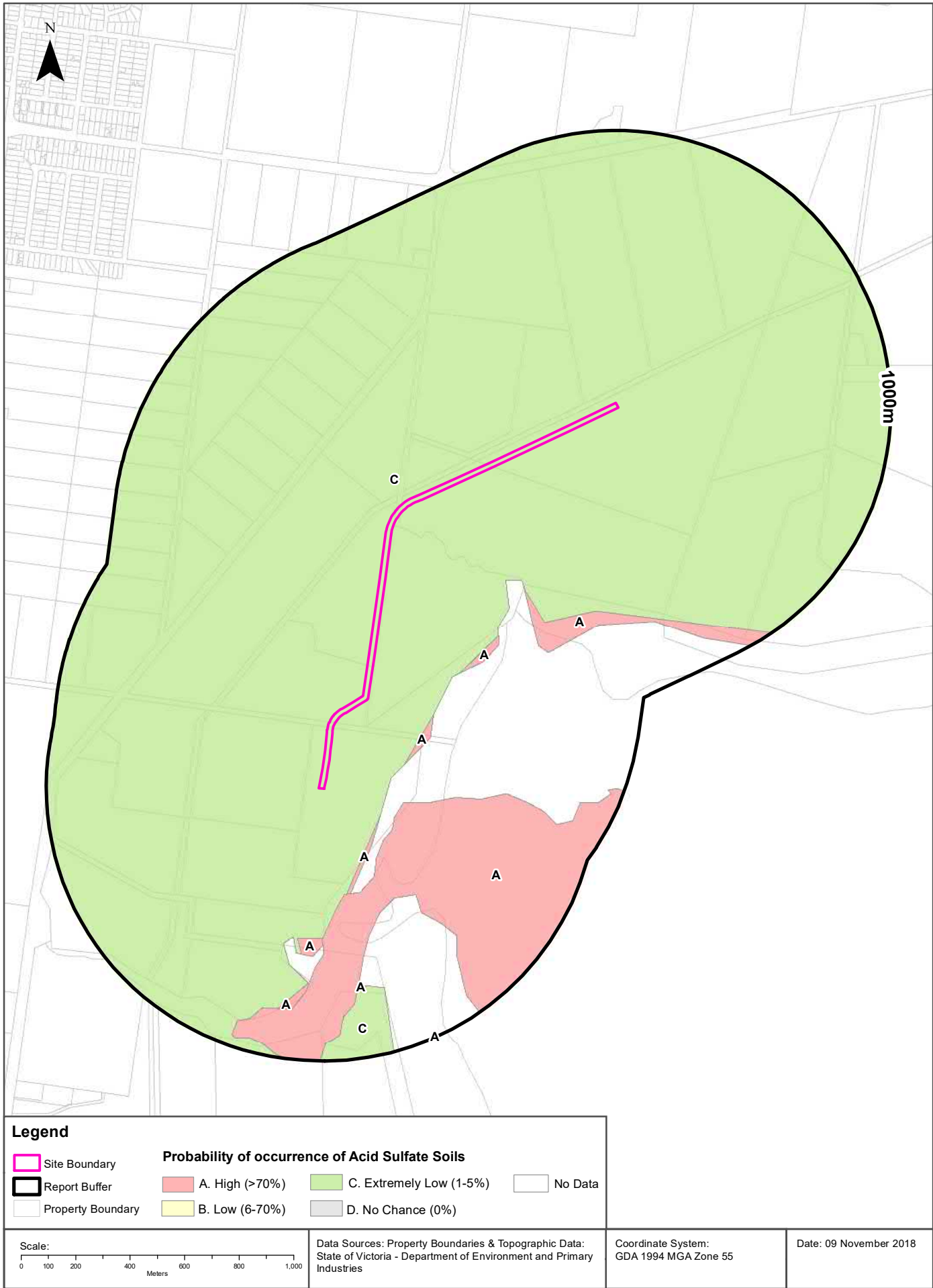
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Victorian Soil Type Mapping

Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance
CHAB	Brown Chromosols	0m
POAL	Aeric Podosols	0m
HYED	Redoxic Hydrosols	193m
SOAD	Grey Sodosols	992m

Victorian Soil Type Mapping Data Source: Department of Economic Development, Jobs, Transport and Resources  
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## Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Atlas of Australian Acid Sulfate Soils

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

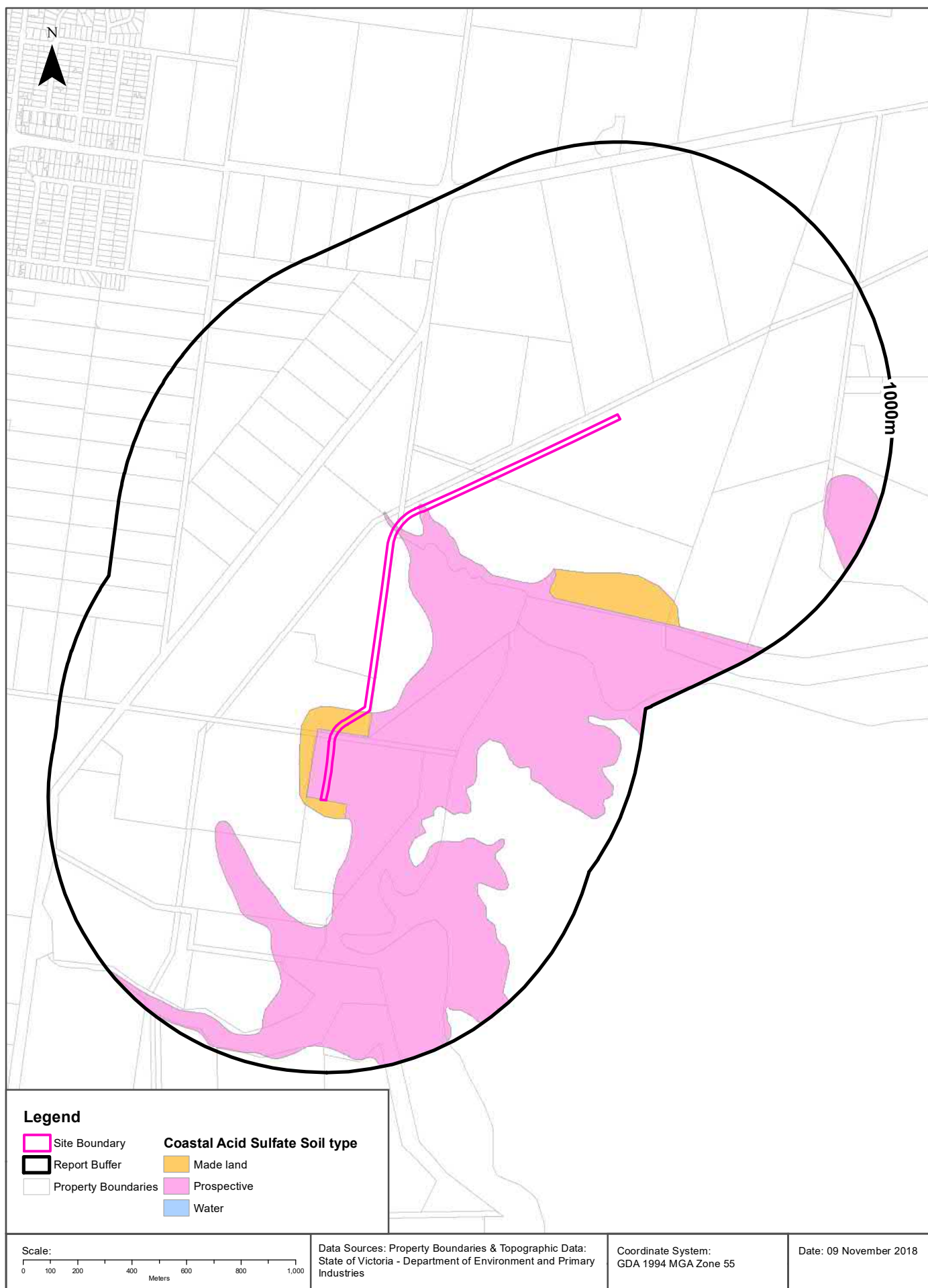
PROBCLASS	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m
A	High Probability of occurrence. >70% chance of occurrence.	226m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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# Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Coastal Acid Sulfate Soils

What are the on-site Coastal Acid Sulfate Soil types?

Coastal Acid Sulfate Soil Types
Made land
Prospective

What are the Coastal Acid Sulfate Soil types within the dataset buffer?

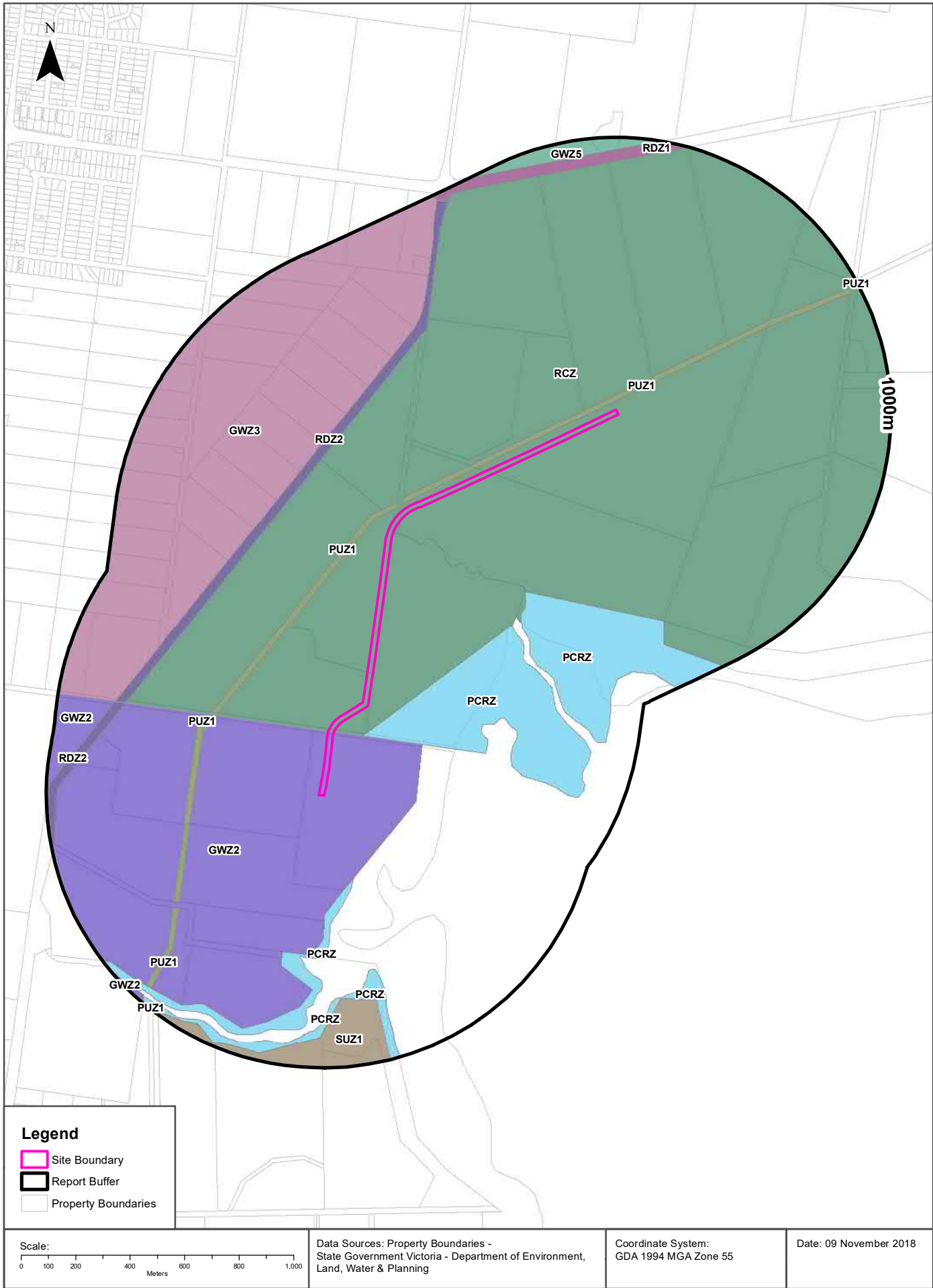
Coastal Acid Sulfate Soil Types	Distance	Direction
Made land	0m	Onsite
Prospective	0m	Onsite
Made land	391m	East

Coastal Acid Sulfate Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Planning Zones

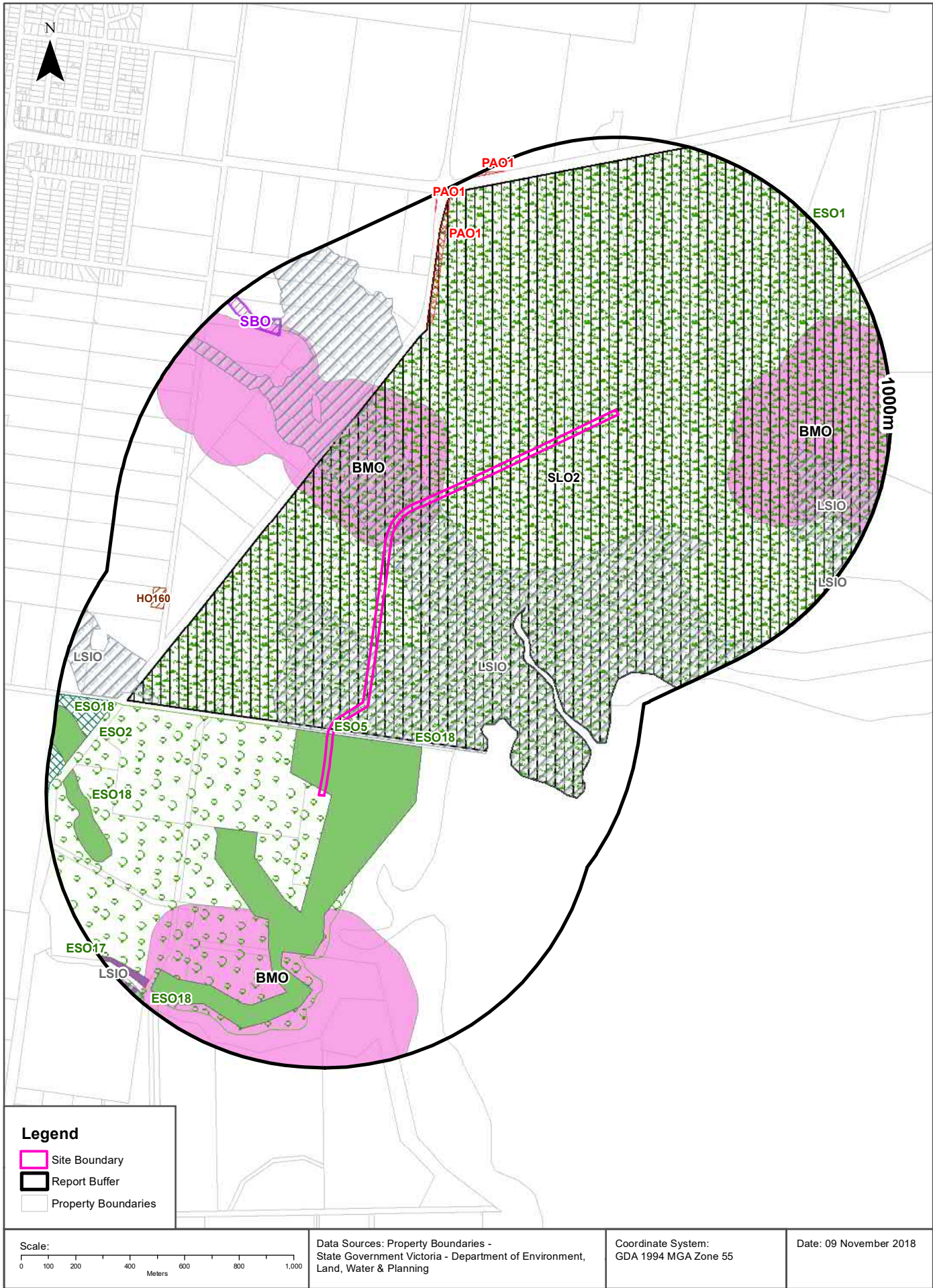
Planning zones within the dataset buffer:

Zone Code	Description	Distance	Direction
RCZ	RURAL CONSERVATION ZONE	0m	Onsite
GWZ2	GREEN WEDGE ZONE - SCHEDULE 2	0m	Onsite
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	21m	North East
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	24m	West
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	76m	South East
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	321m	South West
RDZ2	ROAD ZONE - CATEGORY 2	349m	North West
GWZ3	GREEN WEDGE ZONE - SCHEDULE 3	382m	North West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	418m	South West
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	439m	East
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	660m	South
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	661m	South West
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	744m	South
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	746m	South West
RDZ2	ROAD ZONE - CATEGORY 2	752m	South West
GWZ2	GREEN WEDGE ZONE - SCHEDULE 2	789m	West
RDZ1	ROAD ZONE - CATEGORY 1	897m	North
GWZ5	GREEN WEDGE ZONE - SCHEDULE 5	937m	North East
GWZ2	GREEN WEDGE ZONE - SCHEDULE 2	975m	South West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	991m	South West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	993m	North East

Planning Zone Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Planning Overlays

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Planning Overlays

Planning overlays within the dataset buffer:

Zone Code	Description	Distance	Direction
ESO1	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1	0m	Onsite
SLO2	SIGNIFICANT LANDSCAPE OVERLAY - SCHEDULE 2	0m	Onsite
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	0m	Onsite
BMO	BUSHFIRE MANAGEMENT OVERLAY	0m	Onsite
ESO5	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 5	0m	Onsite
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	0m	Onsite
BMO	BUSHFIRE MANAGEMENT OVERLAY	417m	East
BMO	BUSHFIRE MANAGEMENT OVERLAY	418m	South
PAO1	PUBLIC ACQUISITION OVERLAY 1	570m	North
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	632m	West
HO160	HERITAGE OVERLAY (HO160)	752m	West
SBO	SPECIAL BUILDING OVERLAY	787m	North West
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	788m	South West
ESO2	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 2	795m	West
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	879m	South West
ESO17	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 17	922m	South West
PAO1	PUBLIC ACQUISITION OVERLAY 1	942m	North
PAO1	PUBLIC ACQUISITION OVERLAY 1	967m	North
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	972m	West
ESO17	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 17	975m	South West
ESO18	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 18	975m	South West

Planning Overlay Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

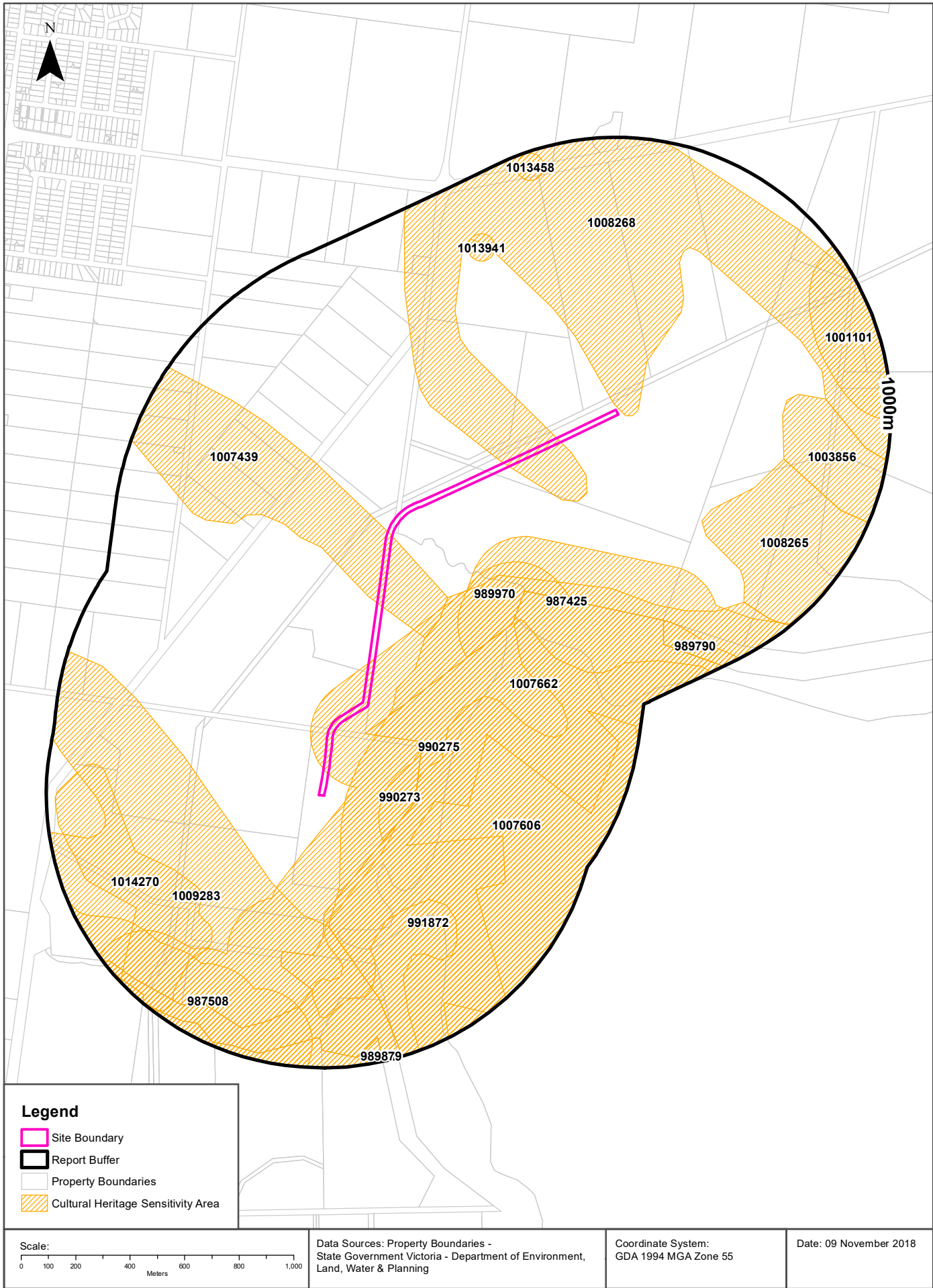
### Victorian Heritage Register

What are the Victorian Heritage Register items located within the dataset buffer?:

VHR Number	Description	Distance	Direction
N/A	No records within buffer		

Victorian Heritage Register Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Cultural Heritage Sensitivity

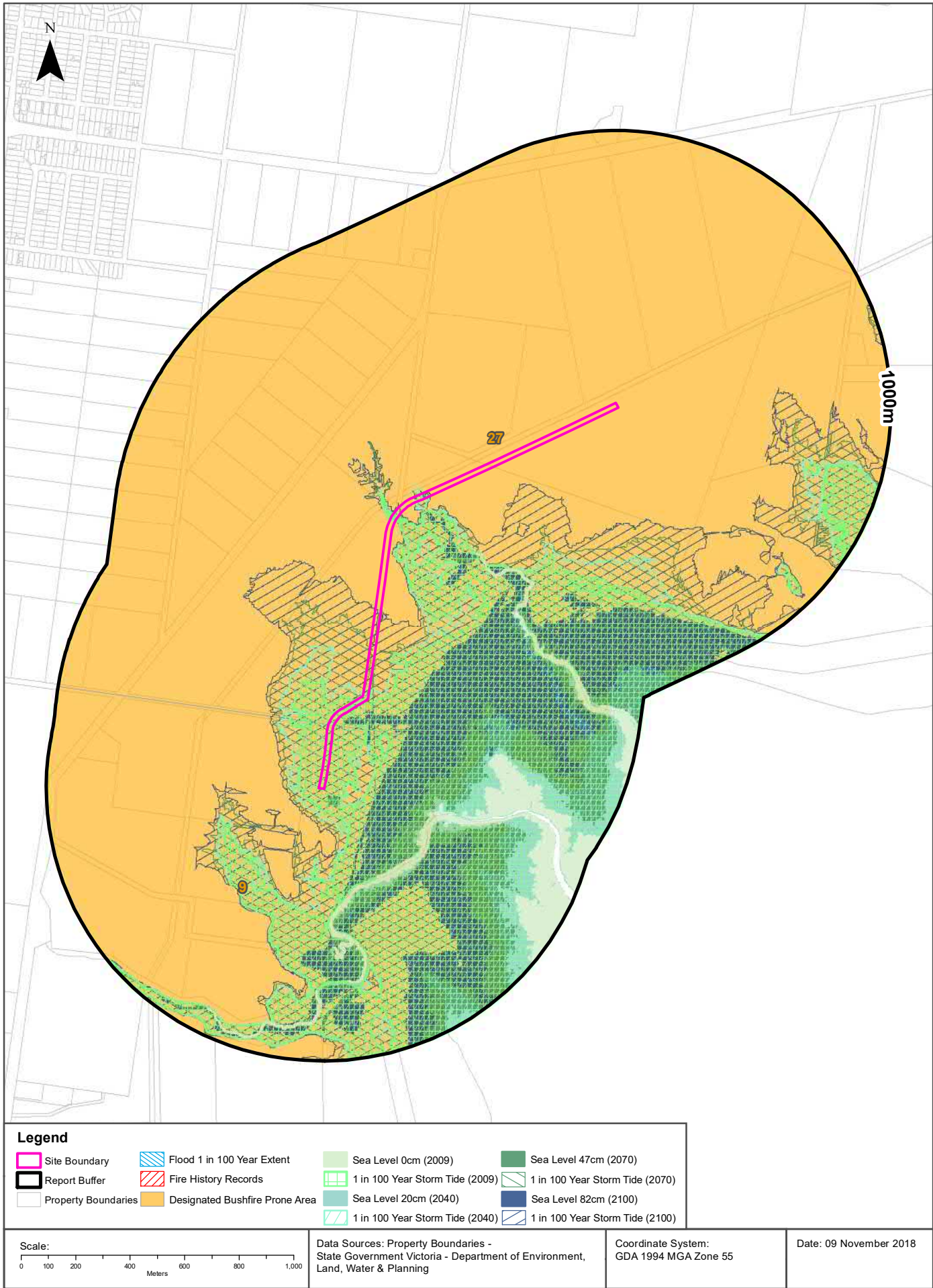
Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2007, within the dataset buffer:

Map Id	Distance	Direction
987425	0m	Onsite
1007439	0m	Onsite
1008268	0m	Onsite
991872	76m	South East
1007662	79m	East
990273	209m	South
990275	256m	South
989970	281m	East
1007606	284m	South East
1009283	325m	South West
1008265	489m	East
1014270	559m	South West
1003856	603m	East
1013941	701m	North
987508	717m	West
989790	753m	East
1001101	774m	North East
1013458	896m	North
989879	953m	South

Cultural Heritage Sensitivity Data Custodian: State Government Victoria - Dept of Planning and Community Development  
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Natural Hazards

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
9	Designated Bushfire Prone Area	LEGL./17-396	MORNINGTON PENINSULA	02/06/2017	0m	Onsite
27	Designated Bushfire Prone Area	LEGL./18-238	CASEY	16/05/2018	0m	Onsite

Bushfire Prone Area Data Custodian: State Government Victoria - Dept of Transport, Planning & Local Infrastructure  
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## Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
N/A	No records within buffer									

Fire History Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records within buffer					

Flood Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

## Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	0m	Onsite
Current (2009) inundation to 1-in-100 year storm tide level	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	0m	Onsite
Projected 82cm sea level rise by 2100	20m	South West
Projected 47cm sea level rise by 2070	35m	South
Projected 20cm sea level rise by 2040	260m	South East
Current (2009) sea level	261m	South East

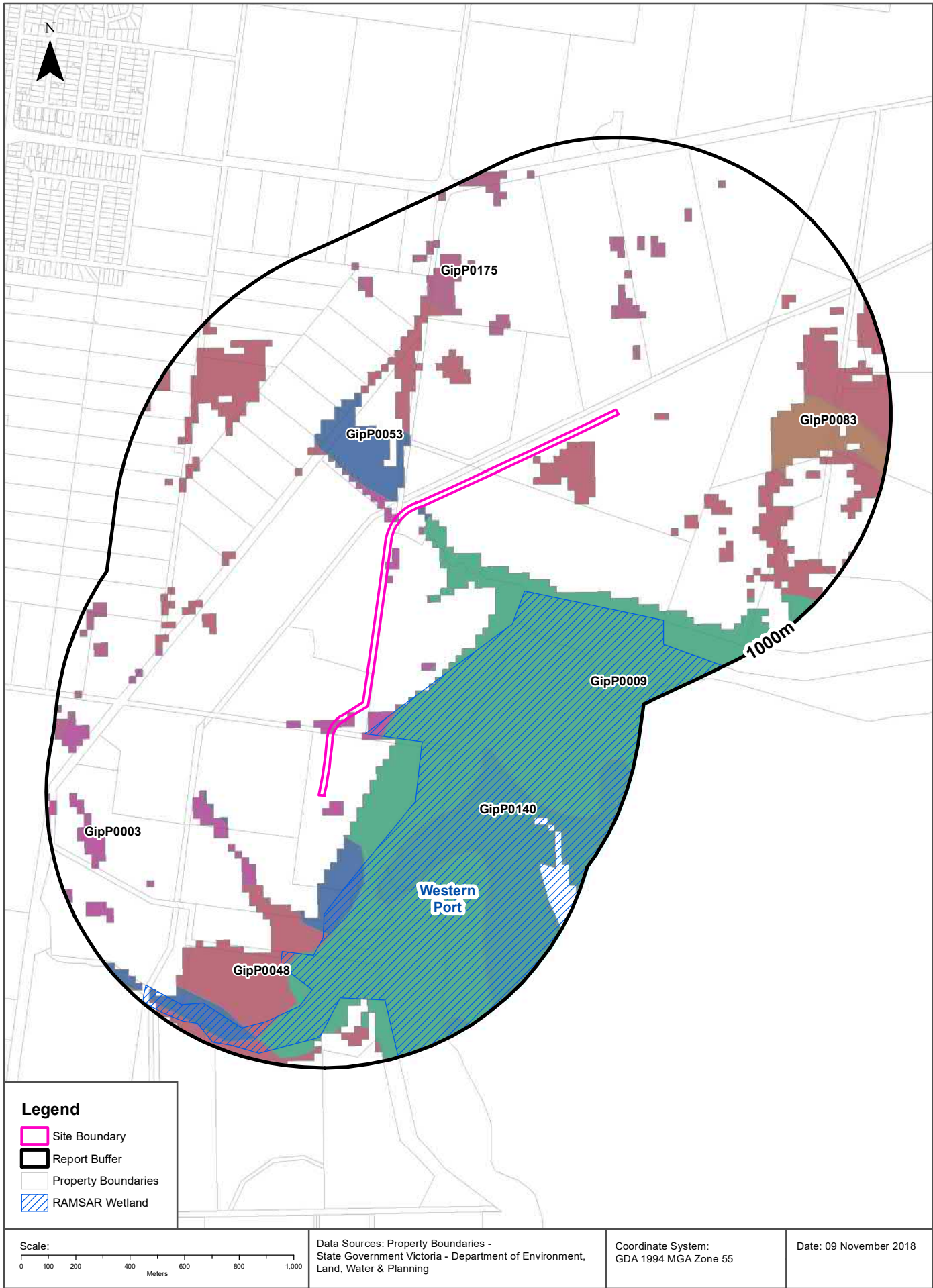
Victorian Coastal Inundation Sea Level Rise Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Ecological Constraints - Native Vegetation 2005 & RAMSAR Wetlands

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Distance
GipP0003	Damp Sands Herb-rich Woodland	0003	Herb-rich Woodlands	Damp Sands	Gippsland Plain	Vulnerable	Common	0m
GipP0053	Swamp Scrub	0053	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	0m
GipP0048	Heathy Woodland	0048	Heathy Woodlands	Dry and/or better drained	Gippsland Plain	Least Concern	Common	3m
GipP0009	Coastal Saltmarsh	0009	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Common	37m
GipP0175	Grassy Woodland	0175	Lower Slopes or Hills Woodlands	Grassy	Gippsland Plain	Endangered	Common	194m
GipP0140	Mangrove Shrubland	0140	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Naturally Restricted	337m
GipP0083	Swampy Riparian Woodland	0083	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	557m

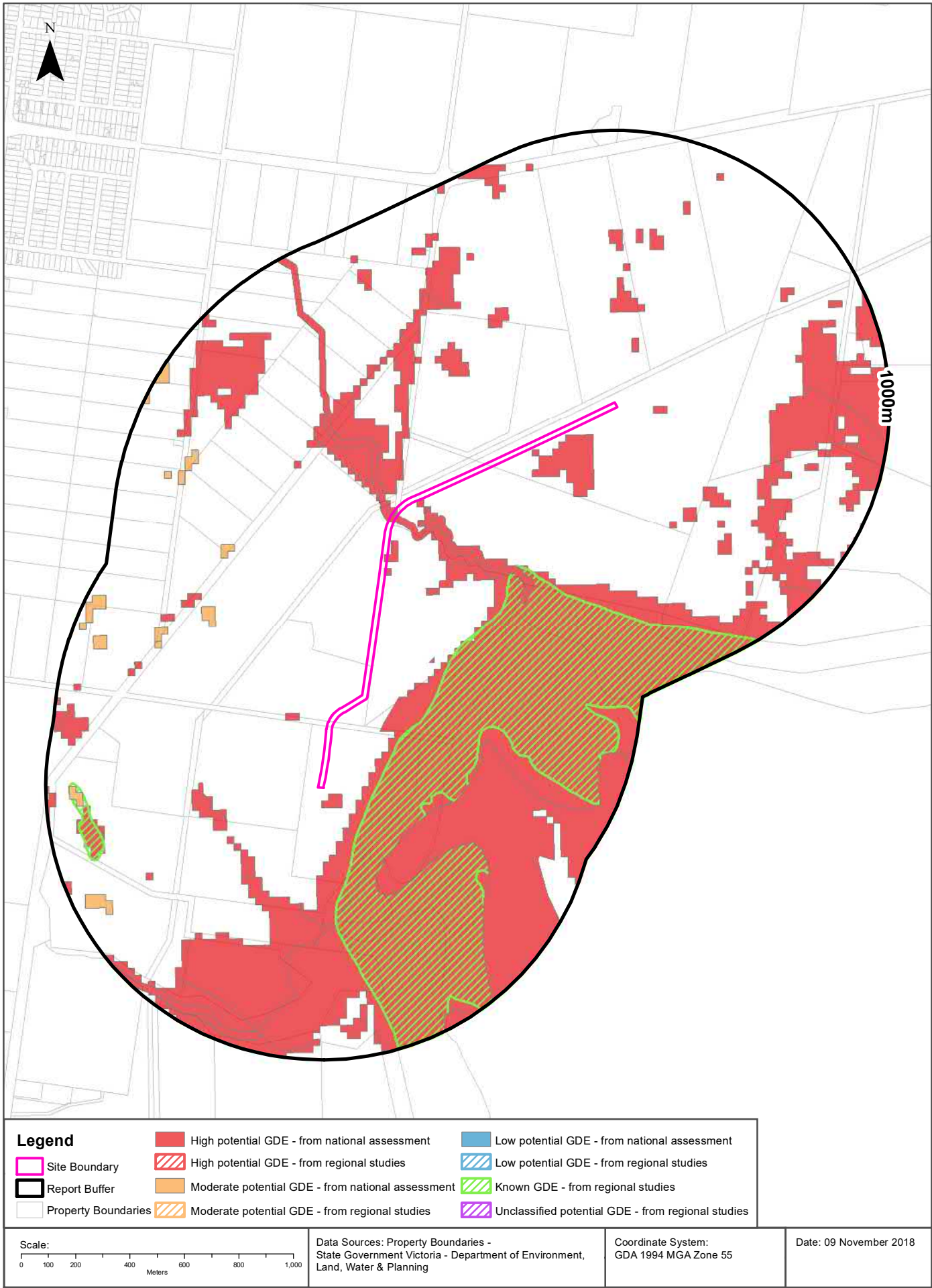
Native Vegetation Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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### RAMSAR Wetlands

What RAMSAR wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
10	Western Port	Western Port	75m	South East

RAMSAR Wetland Area Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Groundwater Dependent Ecosystems Atlas

What GDEs exist within the dataset buffer?

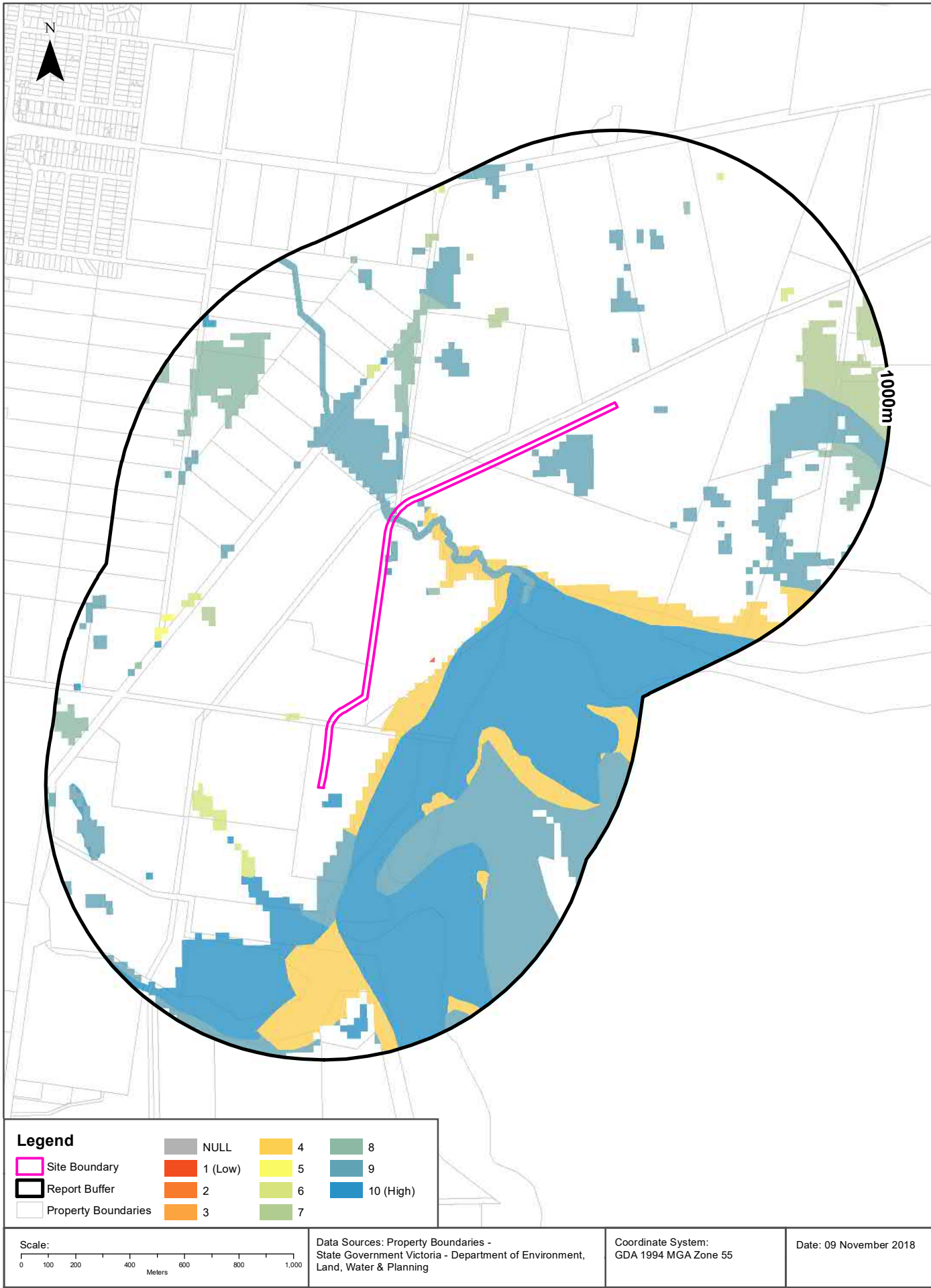
GDE Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Aquatic	LANGWAR RIN CREEK	High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	River	Unconsolidated sedimentary	0m
Terrestrial		High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Aquatic		Known GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		175m
Terrestrial		Moderate potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	538m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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# Inflow Dependent Ecosystems Likelihood

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)





## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 11)

### Inflow Dependent Ecosystems Likelihood

What IDEs exist within the dataset buffer?

GDE Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Aquatic	LANGWAR RIN CREEK	9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	River	Unconsolidated sedimentary	0m
Terrestrial		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		4	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	37m
Terrestrial		6	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	103m
Terrestrial		8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	158m
Aquatic		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		175m
Terrestrial		1	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	204m
Terrestrial		7	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	426m
Terrestrial		5	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	669m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology  
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# LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

**Address: Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810  
(Section 12)**

**Date: 09 Nov 2018 15:42:54**

**Reference: LS004581 EP**

**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. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

## Table of Contents

Location Confidences.....	2
Dataset Listings .....	3
Site Location Aerial .....	5
Topographic Features.....	6
Elevation Contours.....	7
EPA Records.....	8
Waste Management Facilities .....	14
Former Gasworks.....	15
Historical Business Activities.....	16
Historical Aerial Imagery & Maps .....	21
Features of Interest .....	38
Hydrogeology & Groundwater.....	40
Groundwater Boreholes .....	42
Historical Mining Activity .....	52
Geology .....	53
Soil Types.....	56
Acid Sulfate Soils .....	60
Planning Zones .....	64
Planning Overlays.....	66
Heritage.....	68
Natural Hazards .....	71
Ecological Constraints.....	74
Terms & Conditions.....	80

## 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

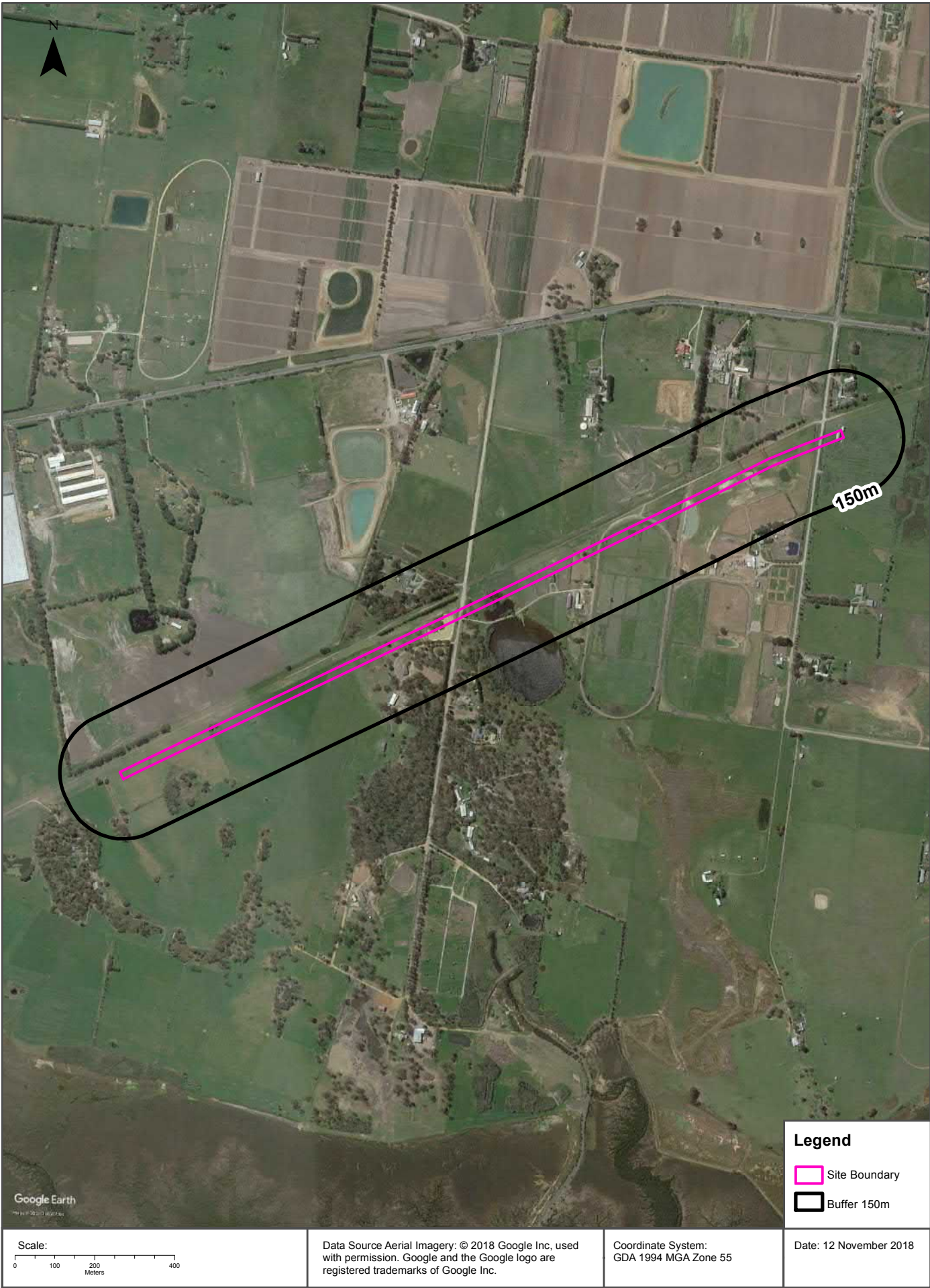
Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	08/10/2018	08/10/2018	Quarterly	-	-	-	-
Current Priority Sites	Environment Protection Authority (Vic)	17/10/2018	31/08/2018	Monthly	1000	0	0	0
Former Priority Sites & other Pollution Notices	Environment Protection Authority (Vic)	19/10/2018	19/10/2018	Monthly	1000	0	0	2
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	19/09/2018	Monthly	1000	0	0	0
Former Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
Works Approvals	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	1
National Waste Management Facilities Database	Geoscience Australia	06/11/2018	07/03/2017	Quarterly	1000	0	0	0
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000	0	0	0
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	23/10/2018	23/10/2018	Quarterly	1000	0	0	0
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	06/09/2018	06/09/2018	Quarterly	1000	0	0	0
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000	0	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 1960-62 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1960-62 (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
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	1	1	6
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	2
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	30/10/2018	01/10/2018	Quarterly	2000	0	0	112
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	27/07/2018	17/02/2010	As required	2000	0	0	8
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	18/10/2018	20/07/2018	As required	1000	0	0	0
Geological Units 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	2	-	5
Geological Structures 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	2	2	2
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000	2	2	3
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000	0	0	3
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	1	4	13
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	2	5	11
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	0	0
Cultural Heritage Sensitivity	State Government Victoria - Department of Planning and Community Development	12/10/2018	12/10/2018	Quarterly	1000	2	2	20
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	12/10/2018	16/05/2018	Quarterly	1000	1	1	1
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	28/06/2018	Quarterly	1000	0	0	0
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	18/11/2014	Quarterly	1000	0	0	0
Victorian Coastal Inundation Sea Level Rise	Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000	1	2	8
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000	2	2	7
RAMSAR Wetlands	State Government Victoria - Department of Environment, Land, Water & Planning	28/03/2017	24/06/2013	None planned	1000	0	0	1
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	1	2	4
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	2	5	8

# Aerial Imagery 2017

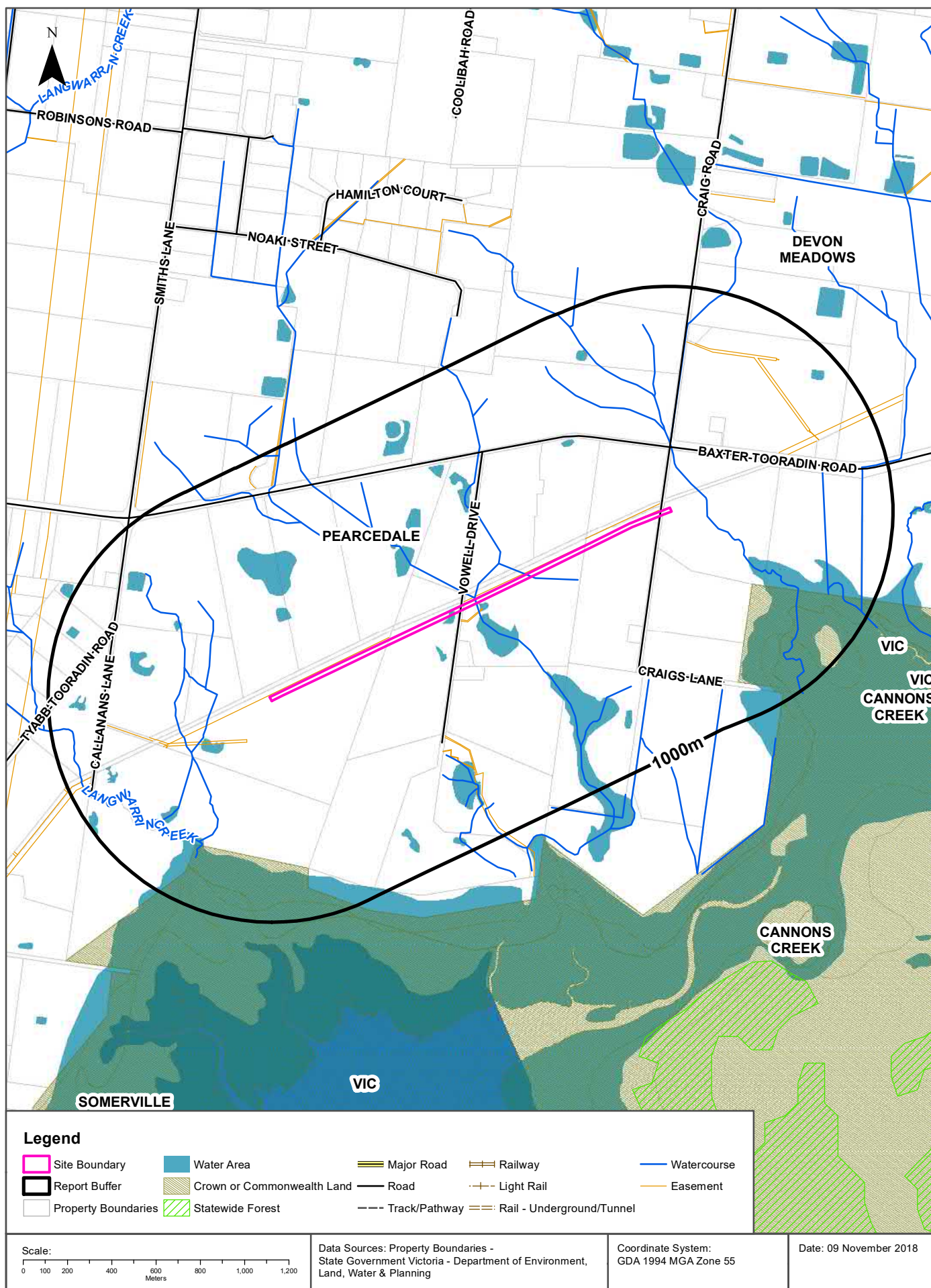
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





# Topographic Data

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



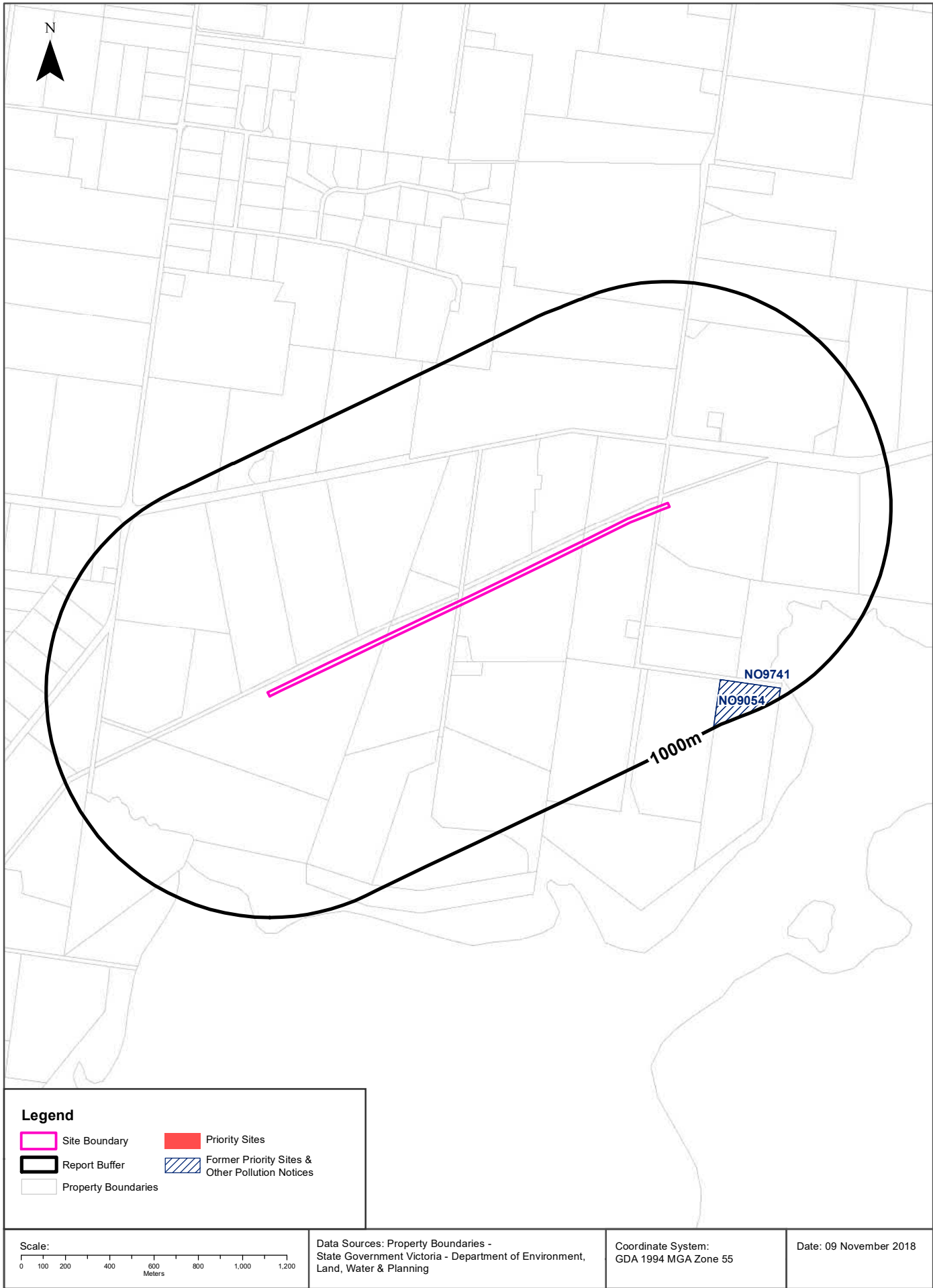
Elevation Contours (m AHD) 10m Interval at 1:25,000  
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





# EPA Records - Priority Sites & Pollution Notices

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
N/A	No records in buffer					

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

**Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.**

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
NO9741	62A(1)	KINGSTON PLANT HIRE VIC P/L	145 CRAIGS LA	PEARCEDALE	Legacy EPA Database Pollution Notice	Industrial Waste has been dumped at the site, Requires assessment and/or clean up.	08/09/2011	Premise Match	811m	South East
NO9054	62A(1)	KINGSTON PLANT HIRE VIC P/L	145 CRAIGS LA	PEARCEDALE	Legacy EPA Database Pollution Notice	Solid Inert Waste has been dumped at the site, Requires assessment and/or clean up.	15/03/2011	Premise Match	811m	South East

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Loc Conf	Distance	Direction
N/A	No records in buffer							

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Loc Conf	Distance	Direction
N/A	No records in buffer						

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

# EPA Records - Licensed Activities & Works Approvals

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer									

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer						

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

## EPA Works Approvals

EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
1002675	Approved/Is sued	145681	BOGICEVIC FAMILY TRUST	191-195 CRAIG RD PEARCEDALE VIC 3912	PEARCEDALE	A03 Sewage Treatment	Premise Match	876m	North

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section12)

### 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: Australian Government Geoscience Australia

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### Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
N/A	No records in buffer								

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

### EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste sites within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist' (m)	Direct
N/A	No records in buffer									

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

### EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist' (m)	Direction
No records in buffer								

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

## Former Gasworks

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:

Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources

## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### 1960-62 Business Directory Records Premise or Road Intersection Matches

Records from the 1960-62 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Directory	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

### 1960-62 Business Directory Records Road or Area Matches

Records from the 1960-62 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.	Directory	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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### 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 2010

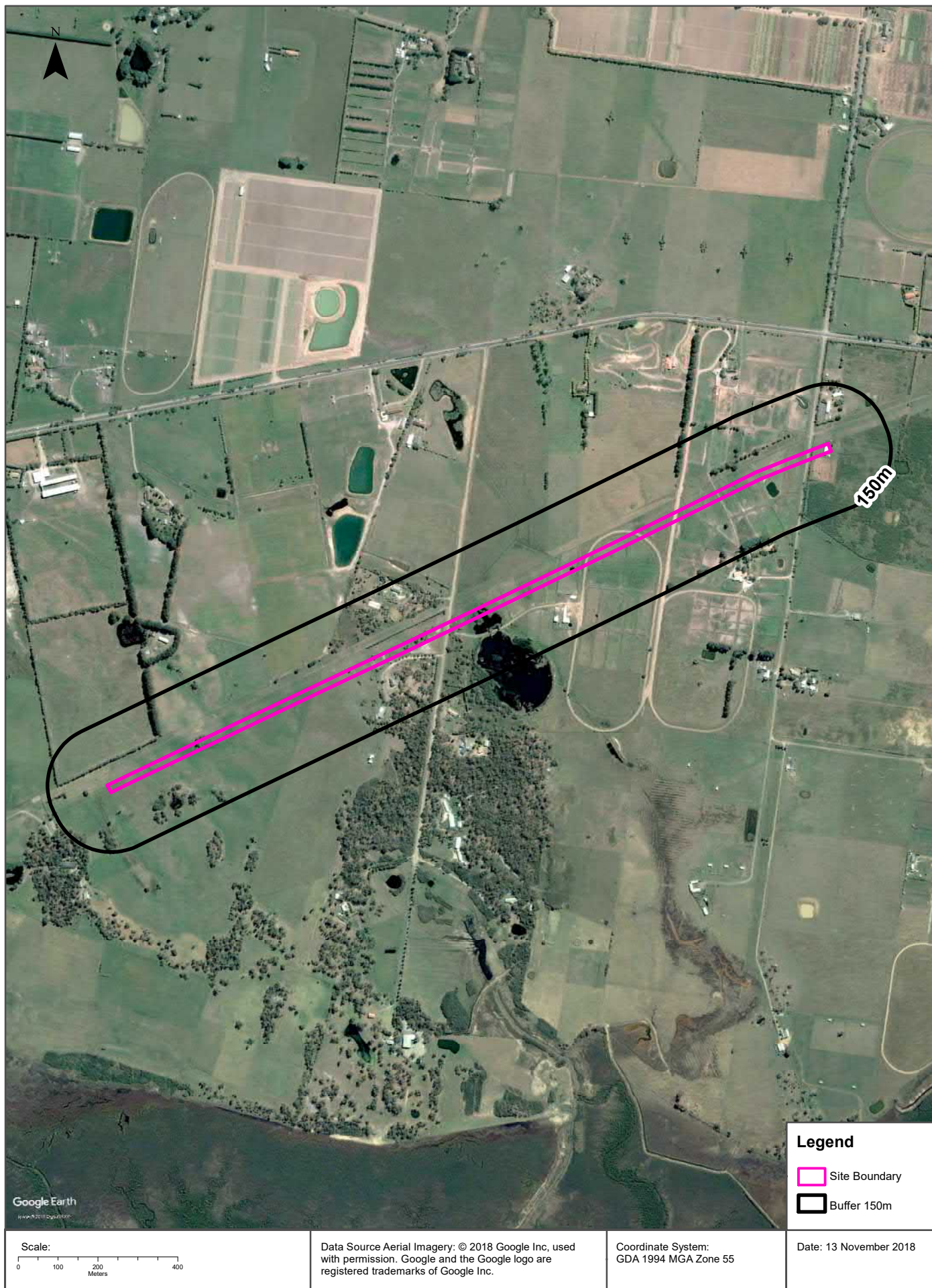
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





Aerial Imagery 2005

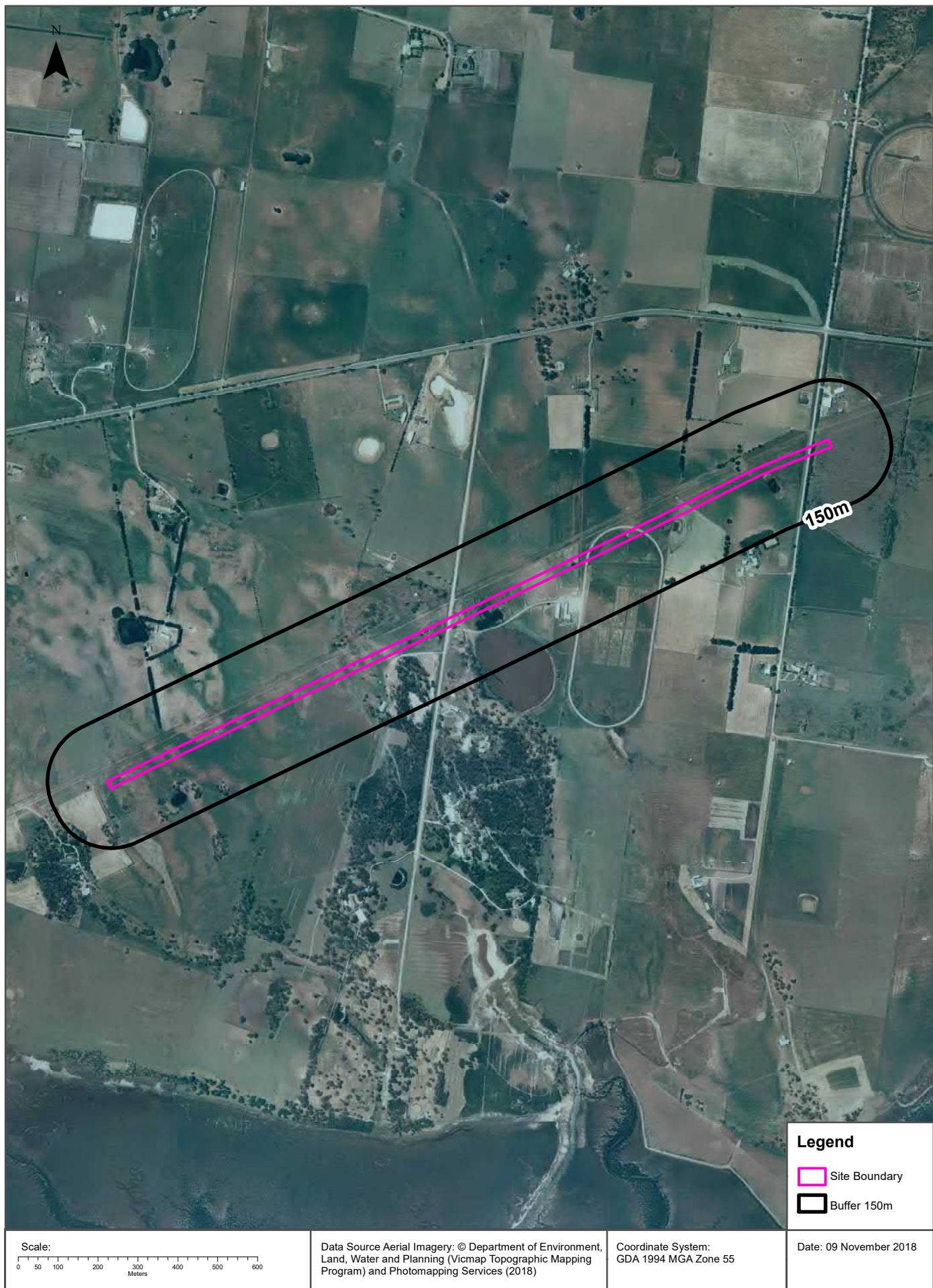
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





Aerial Imagery 1991

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





Aerial Imagery 1989

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Aerial Imagery 1985

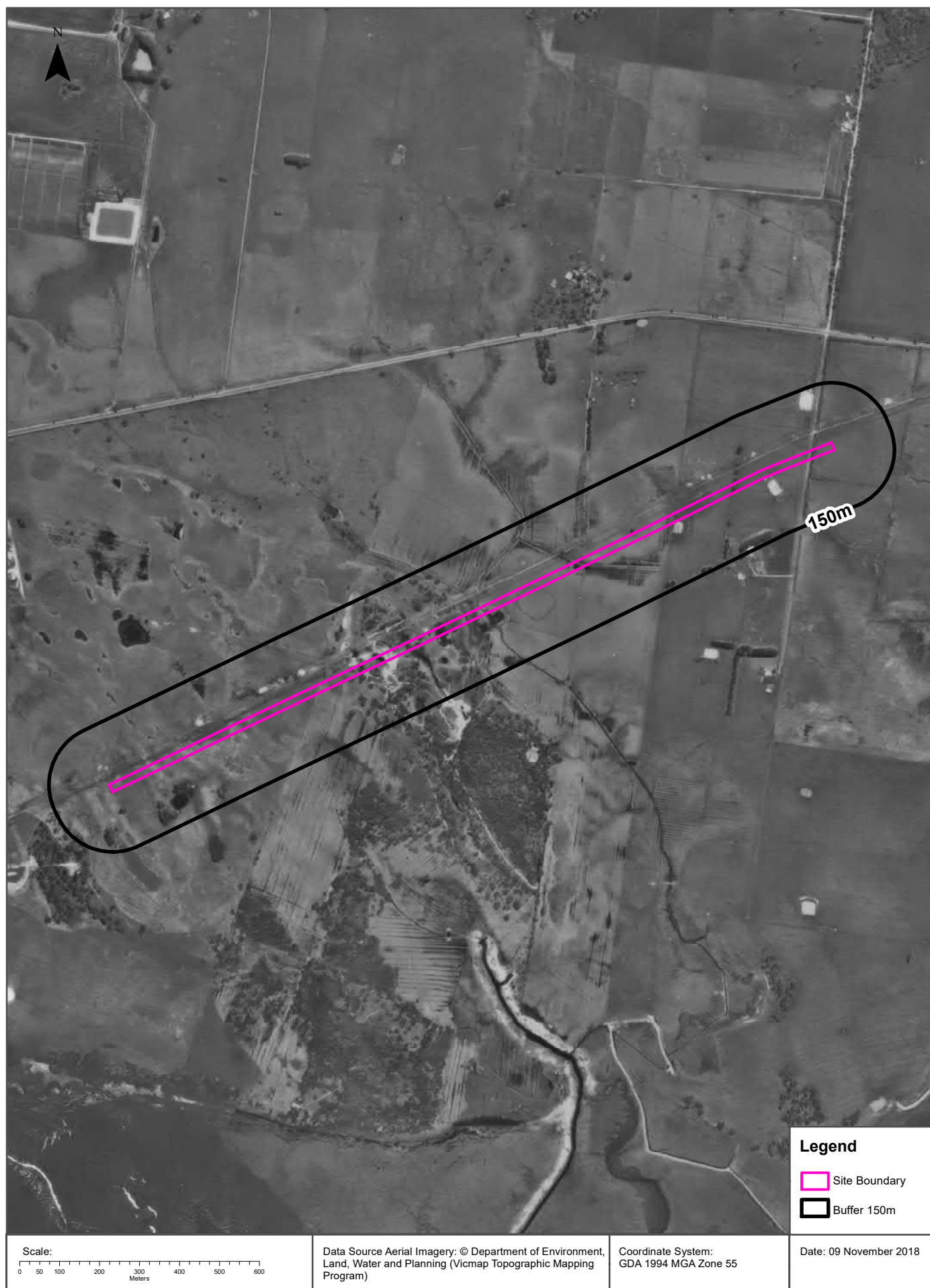
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





## Aerial Imagery 1979

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Aerial Imagery 1974

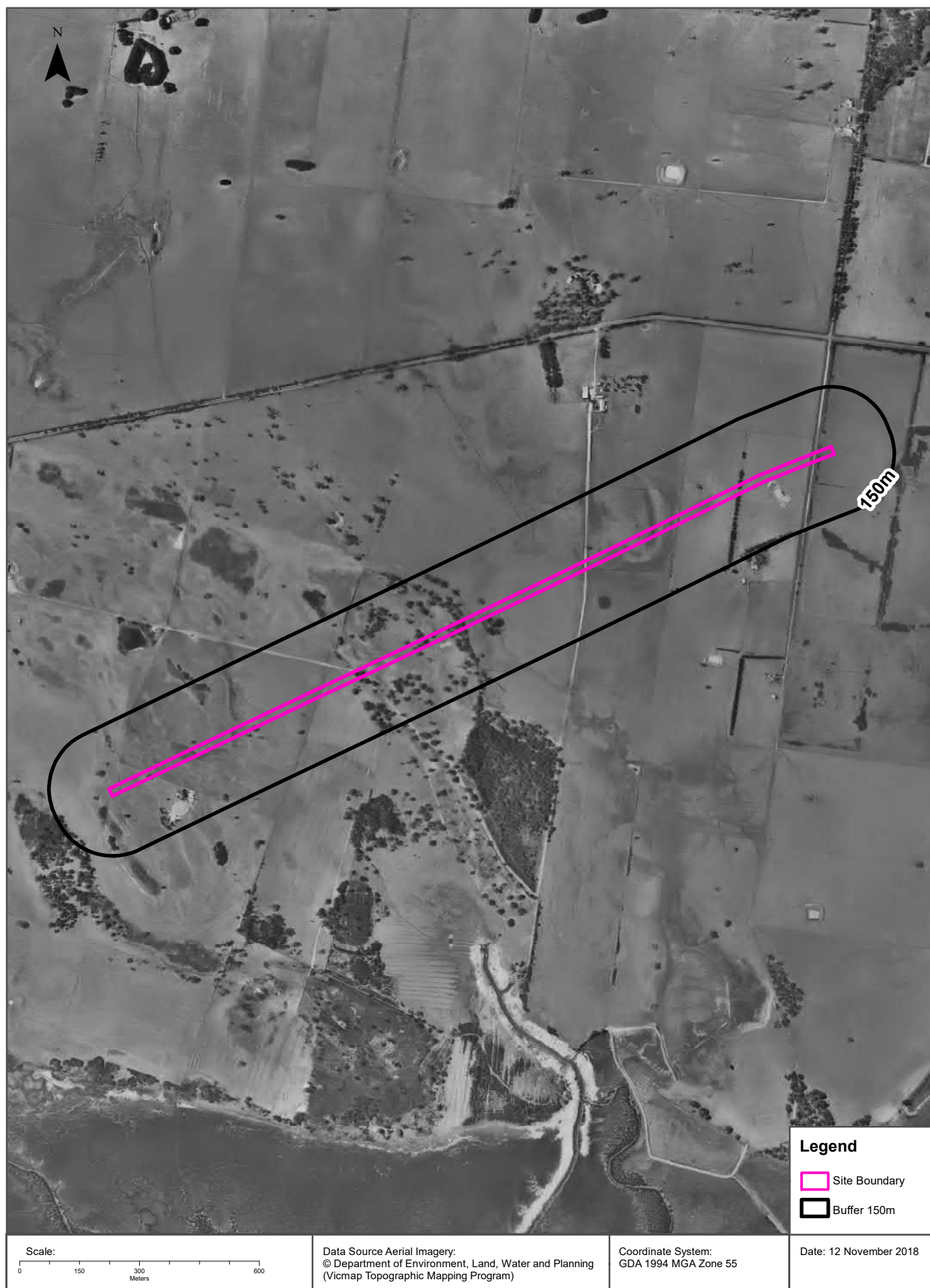
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





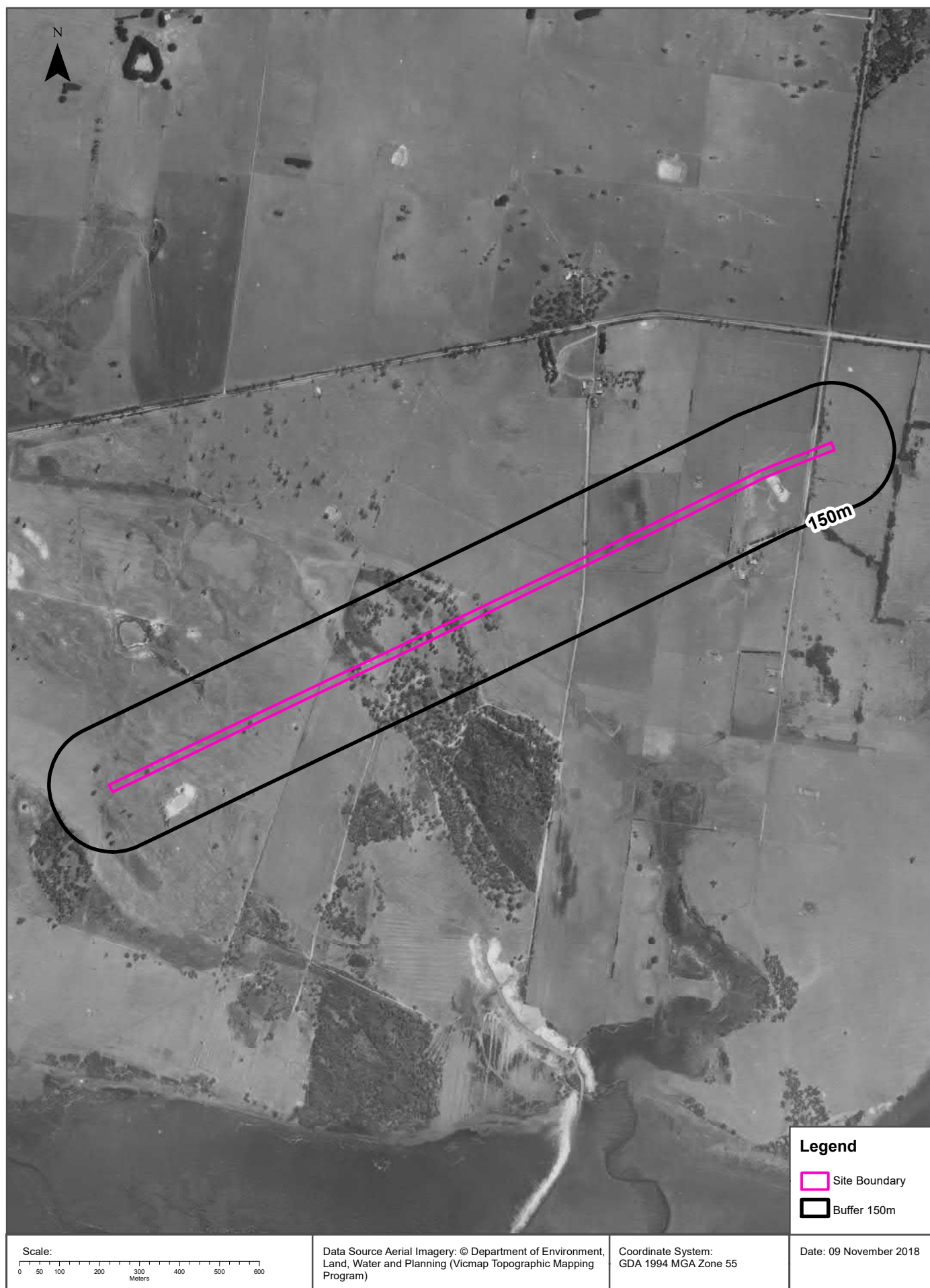
## Aerial Imagery 1968

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Aerial Imagery 1962

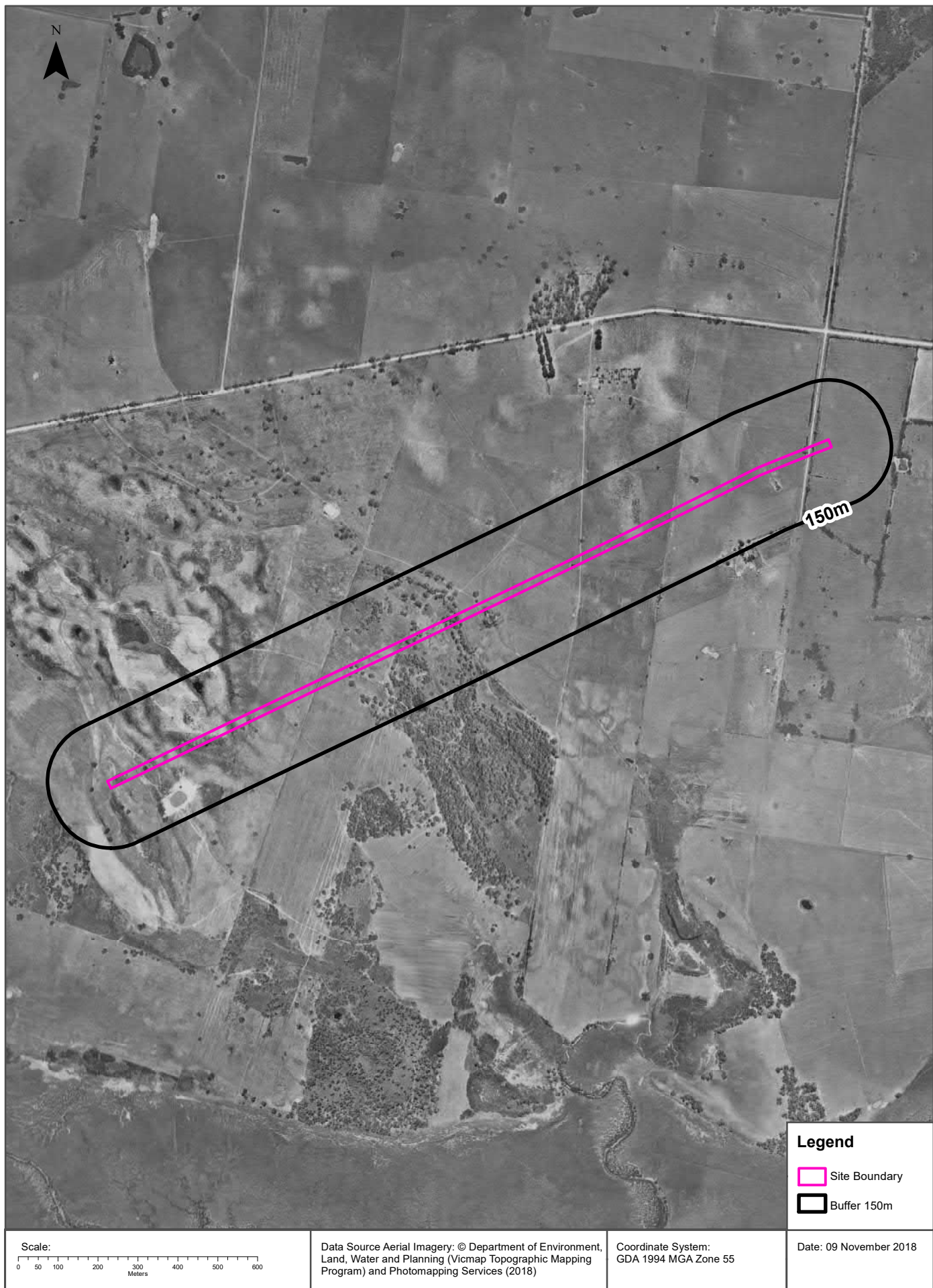
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





Aerial Imagery 1957

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





## Aerial Imagery 1939

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





# Historical Map 2009

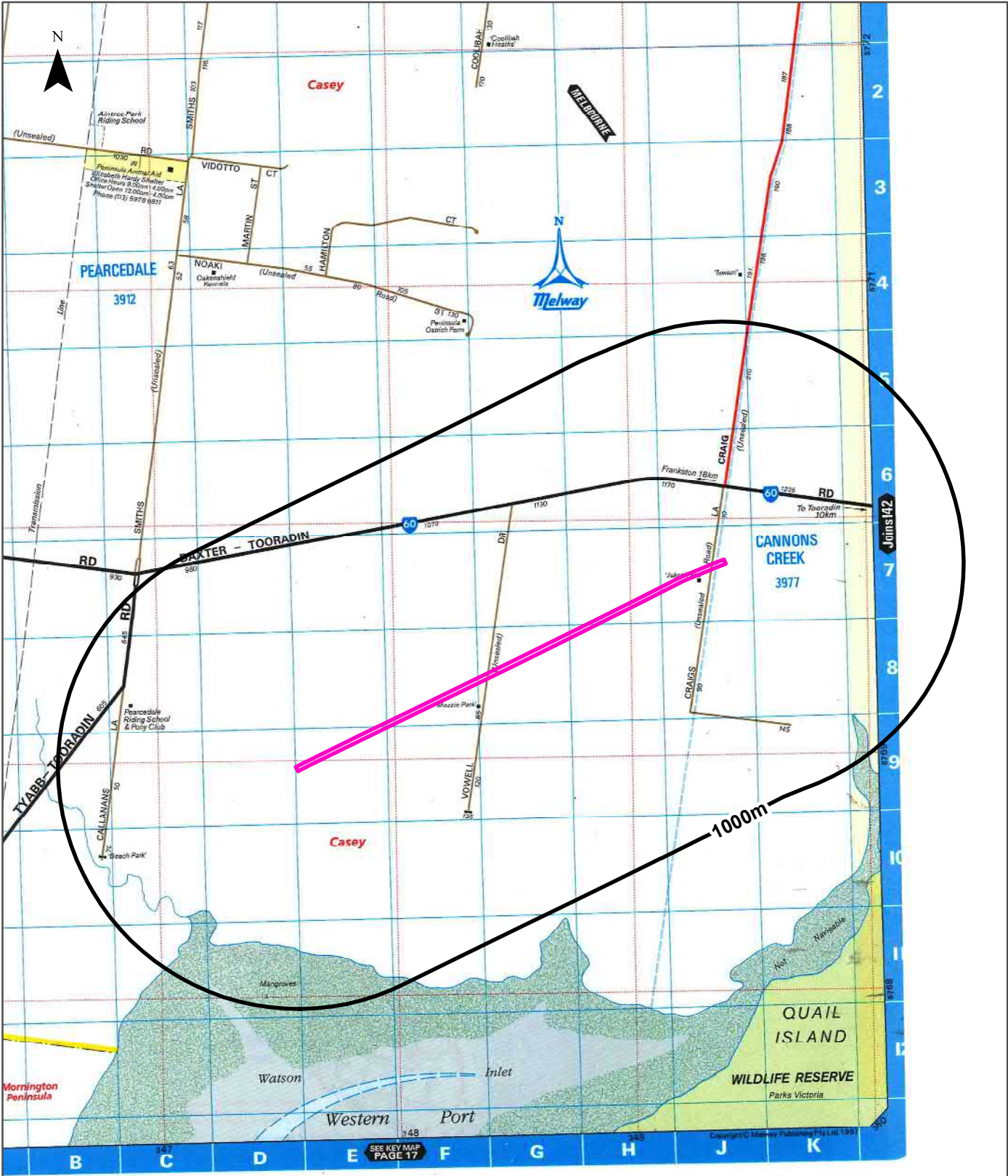
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)







# Historical Map 1998

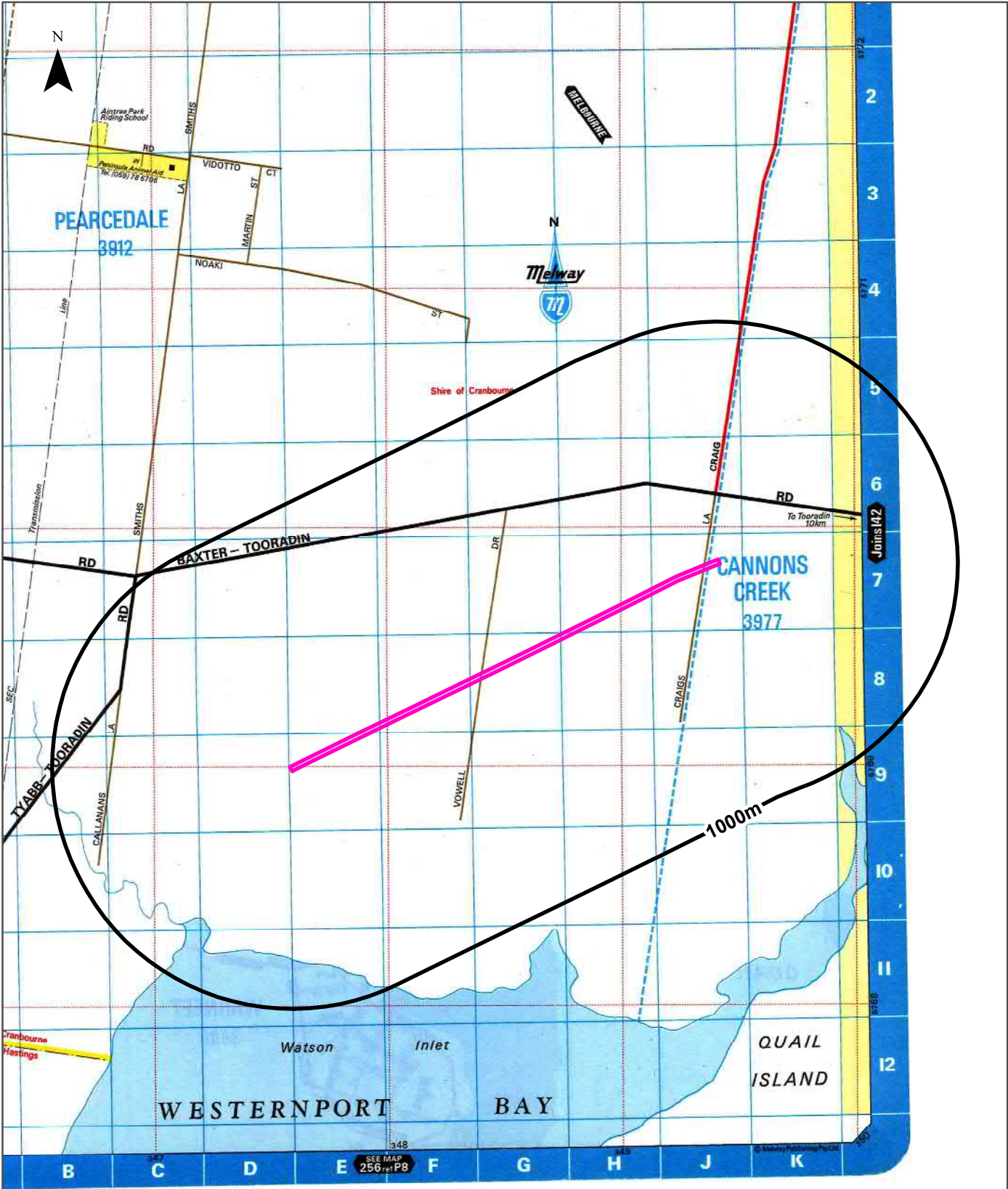
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



<p>Scale:</p> <p>0 100 200 400 600 800 1000 1200</p> <p>Meters</p>	<p>Data Sources: Maps reproduced from 1998, Edition 26 of the Melway Street Directory</p>	<p>Coordinate System: GDA 1994 MGA Zone 55</p>	<p><b>Legend</b></p> <p> Site Boundary</p> <p> Buffer 1000m</p> <p>Date: 09 November 2018</p>
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# Historical Map 1986

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

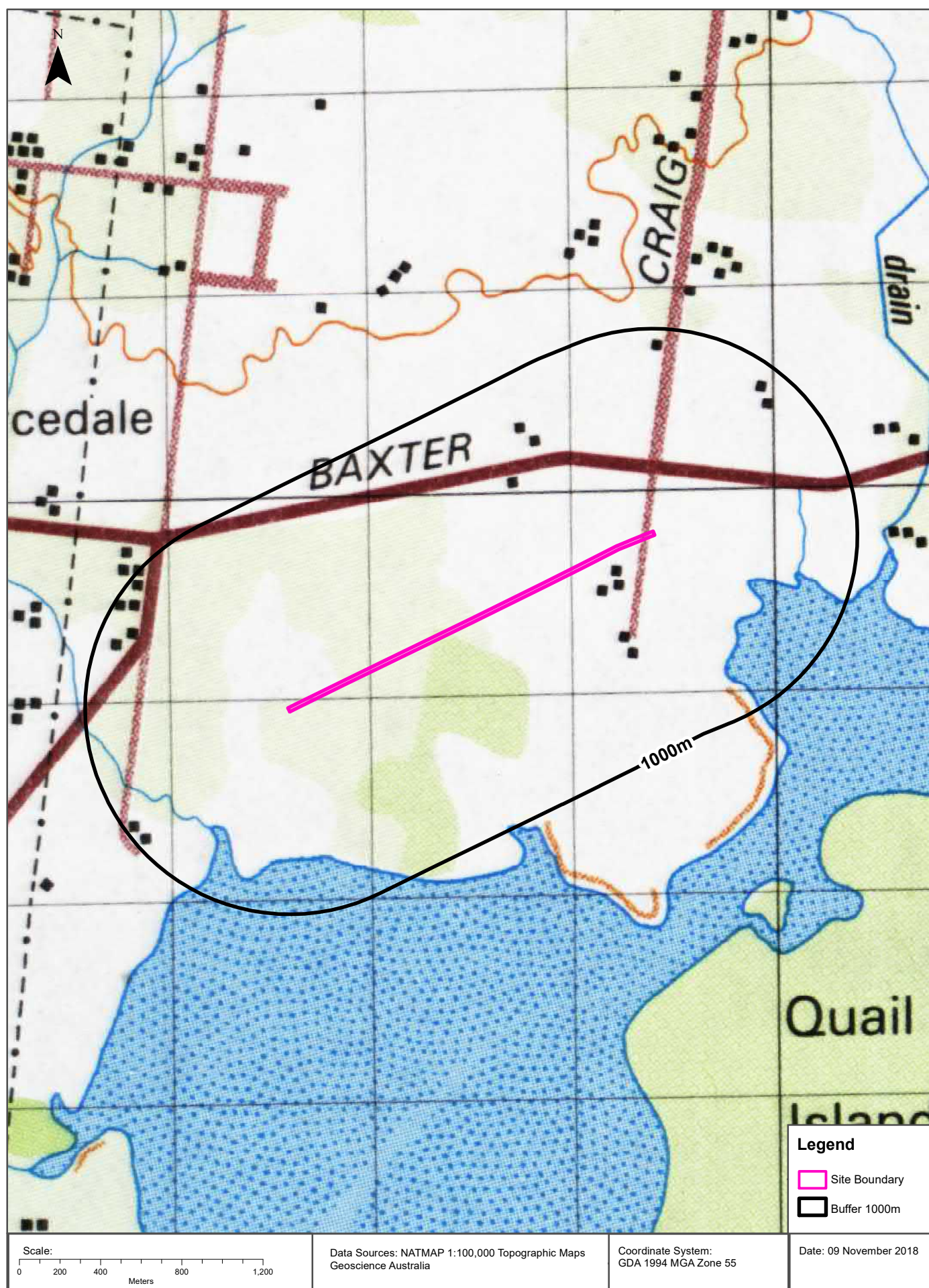


<p>Scale:</p> <p>0 100 200 400 600 800 1000 1200</p> <p>Meters</p>	<p>Data Sources: Maps reproduced from 1986, Edition 16 of the Melway Street Directory</p>	<p>Coordinate System: GDA 1994 MGA Zone 55</p>	<p><b>Legend</b></p> <p>Site Boundary</p> <p>Buffer 1000m</p> <p>Date: 09 November 2018</p>
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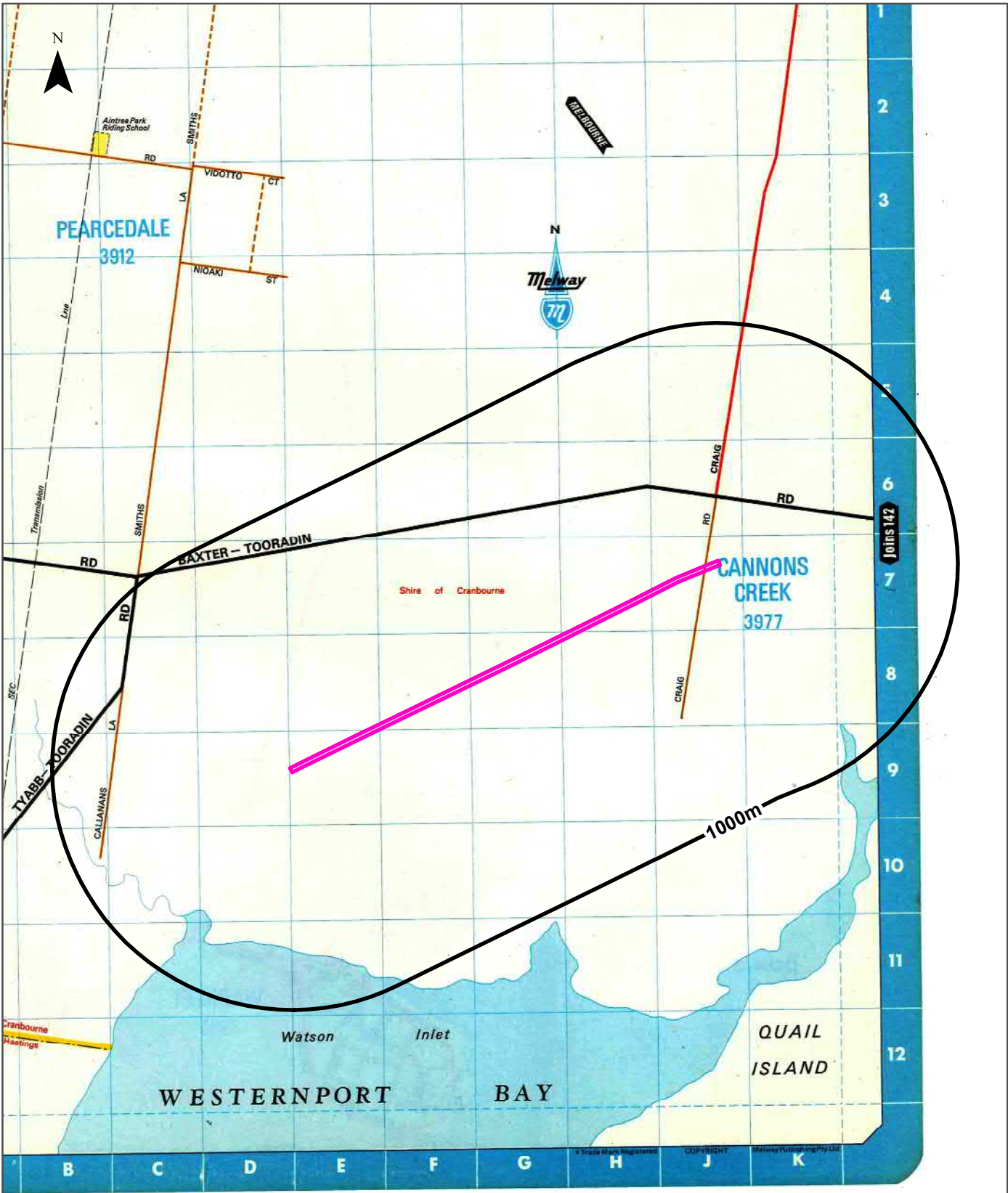
## Historical Map 1979

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



# Historical Map 1978

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



- Legend**
- Site Boundary
  - Buffer 1000m

Scale: 0 100 200 400 600 800 1000 1200 Meters	Data Sources: Maps reproduced from 1978, Edition 11 of the Melway Street Directory	Coordinate System: GDA 1994 MGA Zone 55	Date: 09 November 2018
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# Historical Map 1938

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Legend

- Site Boundary
- Buffer 1000m

Scale:  
0 200 400 800  
Meters

Data Sources: Australia 1:63360 Sheet 859, Cranbourne, Victoria. Prepared by Australian Section Imperial General Staff

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 09 November 2018



# Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Features of Interest

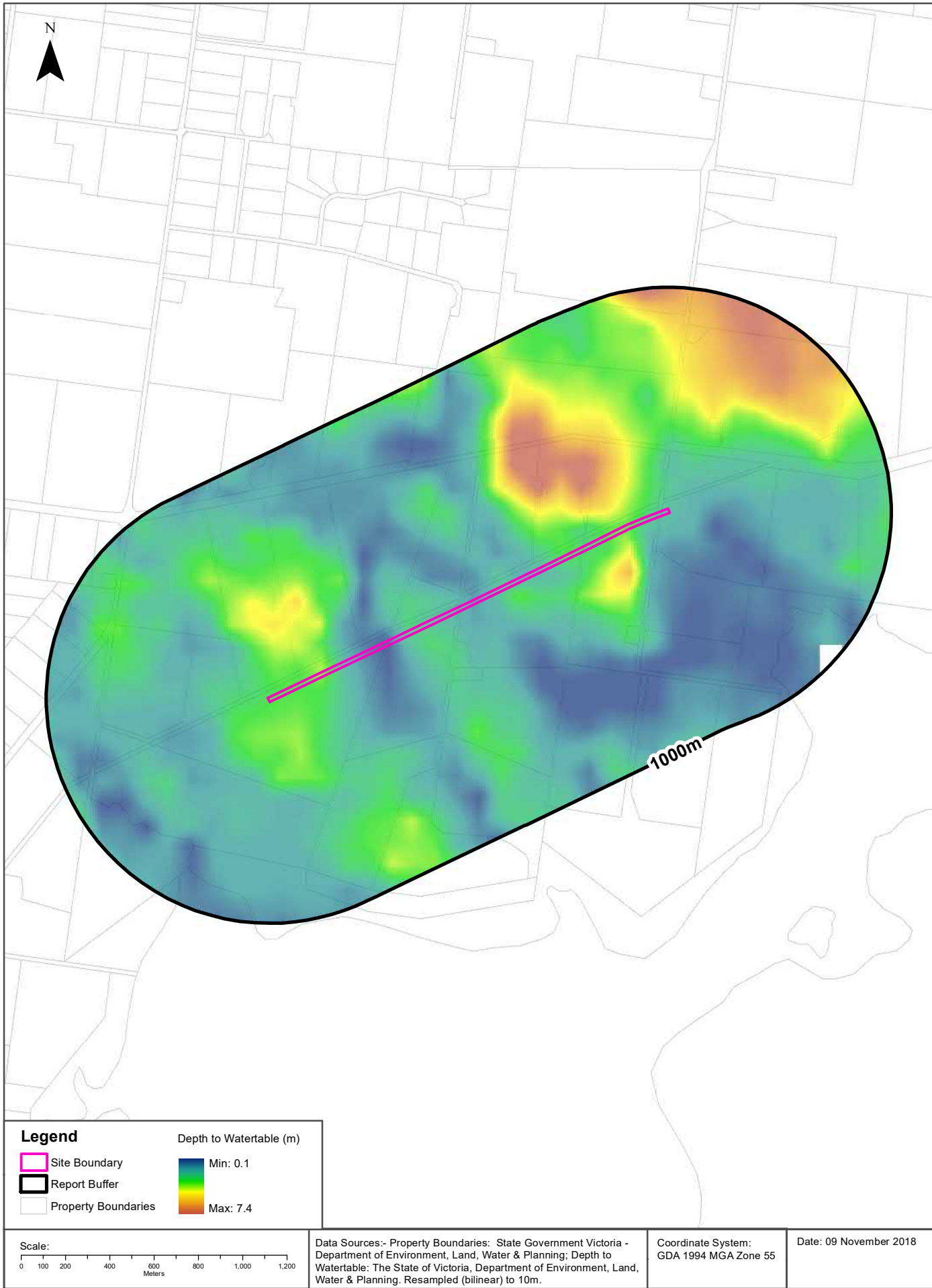
Features of Interest within the dataset buffer:

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
79538	sport facility	training track		0m	Onsite
998361	pipeline	oil pipeline	Dutson To Hastings	154m	East
79500	sport facility	training track		542m	North East
1147420	reserve	national park	Yaringa Marine National Park	715m	South
636502	reserve	park	Pearcedale Conservation Park	749m	West
79503	sport facility	training track		827m	North West

Features of Interest Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Depth to Watertable

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Hydrogeology & Groundwater

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	Onsite
Fractured or fissured, extensive aquifers of low to moderate productivity	465m	

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

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### Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	100

### Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
Less than 5 metres	100

### Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
3 AHDm to 8 AHDm

### Basement Elevation

Approximate on-site Basement Elevation:

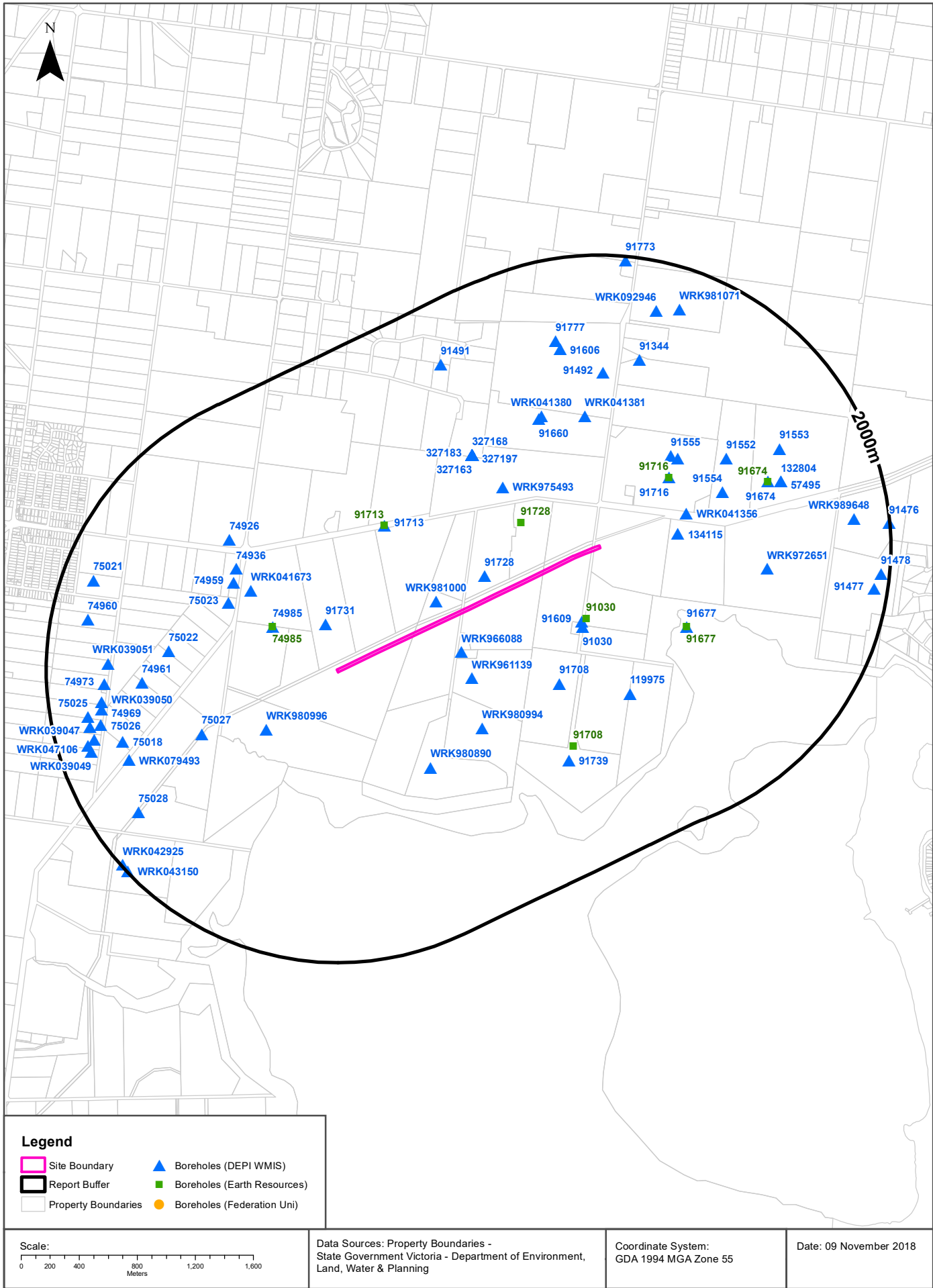
Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
-41 AHDm to -2 AHDm

Groundwater Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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# Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





## Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Boreholes (DEPI WMIS)

Boreholes from the Department of Environment and Primary Industries' Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK981000							131	West
91728	Domestic, Stock	0.00m-0.30m DARK SOIL 0.30m-0.61m GREY BRITTLE SAND 0.61m-6.70m REDDISH GREY BROWN CLAY 6.70m-13.41m FATTY SAND 13.41m-20.73m DARK MARL 20.73m-22.55m SHELLY MARL 22.55m-28.04m CONSOLIDATED SAND SHELL 28.04m-29.87m HARD CORAL 29.87m-36.58m HARD BASALT	0.00m-33.48m INNER LINING - CASING = Galvanised Iron 33.48m-36.58m INNER LINING - SCREEN = Galvanised Iron		33.48m-36.58m Basalt	1985-09-21	144	North East
WRK966088							240	South
91731	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-6.40m CLAY 6.40m-7.00m FINE SLOPPY SANDY CLAY 7.00m-16.40m MARINE COARSE SAND 16.40m-20.10m MARINE SAND AND CLAY 20.10m-21.30m BROKEN SANDSTONE AND MARINE CORAL 21.30m-32.30m FINE SAND AND MARINE SILT 32.30m-33.50m DARK GREEN SILT AND SHELL 33.50m-35.90m BASALT	0.00m-33.80m INNER LINING - CASING = Galvanised Iron 33.80m-35.90m INNER LINING - SCREEN = Galvanised Iron		33.80m-35.90m Basalt	1982-12-17	317	West
91609	Stock	0.00m-0.30m SURFACE SOIL 0.30m-7.31m SANDY CLAY 7.31m-15.24m SLOPPY CLAYEY SAND 15.24m-18.29m BLACK SLOPPY CLAYEY SAND 18.29m-27.13m MARINE CLAY SILT AND SHELL 27.13m-27.74m SCORIA SHELL 27.74m-50.59m MARINE SILT CLAY AND SHELL 50.59m-51.21m HARD FINE SANDSTONE 51.21m-53.03m LAYERS ROCK CORAL SHELL 53.03m-54.80m BASALT	0.00m-50.59m INNER LINING - CASING = Not Known 51.20m-54.86m INNER LINING - SCREEN = Not Known			1973-01-15	410	East
WRK961139							433	South
91030	Observation, State Observation Network		0.00m-22.25m INNER LINING - CASING = Not Known 22.25m-50.29m INNER LINING - SCREEN = Not Known	Date/time: 2016-04-27 1143 Quality: 43 WLMP: 4.26m DBNS: 3.62m RWL: 1.73mAHD		1969-10-06	447	East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
74985	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-3.70m SAND 3.70m-8.20m MARINE AND GREY SANDY CLAY 8.20m-10.40m GREY AND BROWN SANDY CLAY 10.40m-13.10m GREY AND BROWN CLAY 13.10m-14.60m BROWN COARSE SANDY CLAY 14.60m-17.10m SLOPPY BROWN COARSE CLAYEY SAND 17.10m-19.20m MARINE SILT SAND AND SHELL 19.20m-23.50m DARK MARINE SILT 23.50m-28.30m LIGHT MARINE SILT 28.30m-30.80m LIGHT MARINE BASALTIC CLAY 30.80m-32.30m BASALT	0.00m-30.80m INNER LINING - CASING = Galvanised Iron 30.80m-32.30m INNER LINING - SCREEN = Galvanised Iron 29.90m-0.00m OUTER LINING - GRAVEL = Seal		30.80m-32.30m Basalt	1982-12-06	531	West
134115	Stock	0.00m-0.30m SURFACE SOIL 0.30m-3.50m CLAY 3.50m-6.80m SANDY GREY CLAY 6.80m-8.80m MEDIUM SAND	-0.20m-6.80m INNER LINING - CASING = Pvc 6.80m-8.80m INNER LINING - SCREEN = Pvc			1998-03-28	541	East
WRK980996							632	South West
WRK041356	Not Known	0.00m-0.30m TOP SOIL 0.30m-6.00m CLAY 6.00m-21.00m WEATHERED BASALT 21.00m-30.00m VERY HARD BASALT 30.00m-47.00m HARD BASALT 47.00m-57.00m SANDSTONE	-0.30m-30.00m INNER LINING - CASING = Steel 30.00m-57.00m INNER LINING - SCREEN = Steel 0.00m-0.18m OUTER LINING - GRAVEL = Cement			1992-01-25	638	North East
WRK975493	Domestic & Stock	0.50m-8.00m ORANGE & GREY CLAY 8.00m-10.00m ORANGE & GREY SANDY CLAY 10.00m-15.50m DARK GREY CLAY & SAND	0.40m-12.00m INNER LINING - CASING = Pvc 12.00m-15.50m INNER LINING - SCREEN = Pvc 0.50m-4.00m OUTER LINING - GRAVEL = Cement			2006-10-17	640	North
91716	Domestic, Stock	0.00m-0.15m DARK LOAM SOIL 0.15m-0.91m GREY SANDY SOIL 0.91m-8.23m YELLOW CLAY 8.23m-14.63m REDDISH GREY SANDY CLAY 14.63m-17.98m SLOPPY FATTY SAND 17.98m-18.90m GREY GREEN CLAY AND PARTICLES SHELLS 18.90m-22.86m SHELLY CORAL AND BASALT 22.86m-24.38m HARDER BASALT	0.00m-18.29m INNER LINING - CASING = Galvanised Iron 18.89m-24.38m INNER LINING - SCREEN = Galvanised Iron 18.29m-0.00m OUTER LINING - GRAVEL = Seal		18.89m-24.38m Sand	1984-01-26	670	North East
91708	Domestic, Stock	0.00m-3.00m BROWN AND RED CLAY 3.00m-6.00m SANDY CLAY 6.00m-9.00m SAND AND COAL 9.00m-27.00m MEDIUM SAND, GREY CLAY 27.00m-50.00m SAND AND SILTY CLAY, LIMESTONE, SHELLY 50.00m-53.00m LIMESTONE	0.00m-52.43m INNER LINING - CASING = Pvc Class 9 52.43m-53.00m INNER LINING - SCREEN = Pvc Class 9		52.43m-53.00m Limestone	1983-12-19	729	South East
91713	Not Known	0.00m-0.55m TOPSOIL 0.55m-3.00m MOTTLED CLAY 3.00m-5.30m GREY SANDY CLAY 5.30m-6.00m SAND 6.00m-19.00m GREY SANDY CLAY 19.00m-0.00m MUDSTONE				1983-02-02	756	North West
WRK980994							772	South
91555	Stock		0.00m-39.62m INNER LINING - CASING = Galvanised Iron 39.00m-39.62m INNER LINING - SCREEN = Galvanised Iron			1964-12-31	788	North East
91677	Domestic, Stock	0.00m-0.40m TOPSOIL 0.40m-5.50m MOTTLED CLAY 5.50m-11.00m LIGHT GREY SANDY CLAY 11.00m-12.80m FINE SAND	0.00m-11.00m INNER LINING - CASING = Pvc 11.00m-12.80m INNER LINING - SCREEN = Pvc		11.00m-12.80m Sand	1982-02-08	803	East
91556	Stock					1970-12-31	804	North East
WRK041673	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-6.40m CLAY 6.40m-7.00m SLOPPY FINE SANDY CLAY 7.00m-16.40m MARINE COARSE SAND 16.40m-20.10m MARINE SAND AND CLAY 20.10m-21.30m BROKEN SANDSTONE AND MARINE CORAL 21.30m-32.30m FINE SAND AND MARINE SILT 32.30m-33.50m DARK GREEN SILT AND SHELL 33.50m-35.00m BASALT	0.00m-33.00m INNER LINING - CASING = Galvanised Iron 33.00m-35.00m INNER LINING - SCREEN = Galvanised Iron		33.00m-35.00m Basalt	1982-12-20	804	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK980890							865	South
75023	Domestic, Stock					1988-01-01	873	West
WRK041381	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-3.00m BROWN CLAY 3.00m-6.00m RED SILTY CLAY 6.00m-11.50m DARK GREY SOFT CLAY 11.50m-30.00m BASALT 30.00m-31.00m RUBBLE	-0.20m-14.00m INNER LINING - CASING = Pvc -0.20m-29.00m INNER LINING - CASING = Pvc 29.00m-31.00m INNER LINING - SCREEN = Pvc			1997-10-15	893	North East
91554	Stock					1970-12-31	924	North East
74959	Domestic, Stock	0.00m-0.91m SANDY SOIL 0.91m-1.37m COFFEE ROCK 1.37m-3.66m GREY SANDY CLAY 3.66m-10.36m PINKY SAND CLAY 10.36m-16.46m IRON STONE BOULDERS 16.46m-22.86m BROWN PASTY CLAY 22.86m-34.44m BROWN COAL AND WOOD 34.44m-39.01m MEDIUM BROWN SAND 39.01m-44.50m BROWN PASTY CLAY AND WOOD 44.50m-46.02m LAMUTATED GRANITE AND SAND 46.02m-0.00m MUDSTONE CLAY	0.00m-35.63m INNER LINING - CASING = Steel 34.44m-39.01m INNER LINING - SCREEN = Steel 44.50m-46.02m INNER LINING - SCREEN = Wire W S/Steel 33.37m-0.00m OUTER LINING - GRAVEL = Seal			1976-05-27	928	West
327168	Non Groundwater					1953-12-31	929	North
327162	Non Groundwater					1953-12-31	929	North
327182	Non Groundwater					1964-12-31	929	North
327159	Non Groundwater					1953-12-31	929	North
327191	Non Groundwater					1964-12-31	929	North
327171	Non Groundwater					1953-12-31	929	North
327194	Non Groundwater					1964-12-31	929	North
327188	Non Groundwater					1964-12-31	929	North
327185	Non Groundwater					1964-12-31	929	North
327165	Non Groundwater					1953-12-31	929	North
327190	Non Groundwater					1964-12-31	929	North
327196	Non Groundwater					1964-12-31	929	North
327164	Non Groundwater					1953-12-31	929	North
327176	Non Groundwater					1964-12-31	929	North
327174	Non Groundwater					1964-12-31	929	North
327195	Non Groundwater					1964-12-31	929	North
327160	Non Groundwater					1953-12-31	929	North
327186	Non Groundwater					1964-12-31	929	North
327166	Non Groundwater					1953-12-31	929	North
327175	Non Groundwater					1964-12-31	929	North
327181	Non Groundwater					1964-12-31	929	North
327161	Non Groundwater					1953-12-31	929	North
327169	Non Groundwater					1953-12-31	929	North

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
327192	Non Groundwater					1964-12-31	929	North
327183	Non Groundwater					1964-12-31	929	North
327157	Non Groundwater					1952-12-31	929	North
327189	Non Groundwater					1964-12-31	929	North
327197	Non Groundwater					1964-12-31	929	North
327163	Non Groundwater					1953-12-31	929	North
327177	Non Groundwater					1964-12-31	929	North
327180	Non Groundwater					1964-12-31	929	North
327199	Non Groundwater					1964-12-31	929	North
327167	Non Groundwater					1953-12-31	929	North
327179	Non Groundwater					1964-12-31	929	North
327187	Non Groundwater					1964-12-31	929	North
327173	Non Groundwater					1953-12-31	929	North
327184	Non Groundwater					1964-12-31	929	North
327170	Non Groundwater					1953-12-31	929	North
327193	Non Groundwater					1964-12-31	929	North
327172	Non Groundwater					1953-12-31	929	North
327198	Non Groundwater					1964-12-31	929	North
327158	Non Groundwater					1952-12-31	929	North
327178	Non Groundwater					1964-12-31	929	North
91660	Domestic, Stock	17.68m-22.86m GREY BLUEY POROUS HONEYCOMB ROCK	0.00m-17.91m INNER LINING - CASING = Galvanised Iron 17.91m-22.83m INNER LINING - SCREEN = Galvanised Iron		17.91m-22.83m Basalt	1980-03-08	963	North
WRK041380	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-8.00m SAND 8.00m-14.00m CLAY 14.00m-14.80m BASALT 14.80m-28.00m HARD BASALT 28.00m-29.00m RUBBLE	-0.30m-14.50m INNER LINING - CASING = Steel -0.30m-24.00m INNER LINING - CASING = Not Known 24.00m-29.00m INNER LINING - SCREEN = Steel			1997-10-27	972	North
74936	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-6.40m CLAY 6.40m-7.92m CLAY WITH IRONSTONE PIECES 7.92m-8.53m MOTTLEY CLAY 8.53m-9.14m FINE MARBLEY SANDSTONE 9.14m-10.06m BROKEN LIGNITE 10.06m-19.20m LIGNITE BROWN CLAY 19.20m-24.99m GREY MUDSTONE 24.99m-25.60m GREEN MUDSTONE 25.60m-27.43m GREY MUDSTONE	0.00m-23.16m INNER LINING - CASING = Not Known 25.29m-25.90m INNER LINING - SCREEN = Not Known			1972-01-08	980	West
119975	Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-5.10m CLAY 5.10m-6.10m GREY SANDY CLAY 6.10m-6.40m FINE WHITE SAND 6.40m-13.70m BROWN COAL & LAYERS OF MEDIUM-FINE SAND 13.70m-23.10m MARINE SILT 23.10m-23.70m LIMESTONE 23.70m-31.40m CORAL 31.40m-35.00m SAND & COAL 35.00m-39.60m LIGHT GREEN SILT SHELL AND LAYERS OF LIMESTONE 39.60m-51.80m GREEN SILT & SHELLS 51.80m-58.00m BASALT	-0.20m-51.80m INNER LINING - CASING = Pvc 51.80m-58.00m INNER LINING - SCREEN = Pvc 0.00m-0.30m OUTER LINING - GRAVEL = Cement			1993-02-04	1003	South East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
75027	Stock					1988-01-01	1027	South West
91552	Stock					1970-12-31	1060	North East
WRK972651	Domestic & Stock		0.00m-61.00m INNER LINING - CASING = Pvc 11.00m-61.00m OUTER LINING - GRAVEL = Cement		0.00m-61.00m Clay 61.00m-62.60m Basalt	2006-02-22	1156	East
74926	Domestic, Stock					1970-12-31	1161	West
75022	Stock					1988-01-01	1164	West
91492	Stock					1970-12-31	1188	North East
91739	Domestic, Stock	0.00m-0.20m TOPSOIL 0.20m-1.00m SANDY LOAM 1.00m-3.00m RED AND ORANGE SANDY CLAY 3.00m-12.00m YELLOW AND GREY SANDY CLAY 12.00m-14.00m FINE SAND 14.00m-17.50m LIGNIOUS CLAY 17.50m-29.00m GREEN SILTY CLAY 29.00m-51.65m GREEN SILTY CLAY AND SHELLS 51.65m-64.00m BASALT	0.00m-51.65m INNER LINING - CASING = Galvanised Iron 51.65m-64.00m INNER LINING - SCREEN = Galvanised Iron		51.65m-64.00m Basalt	1986-02-24	1232	South East
91674	Domestic, Stock	0.00m-0.60m SANDY LOAM TOPSOIL 0.60m-2.00m FINE DRY SAND 2.00m-9.00m MOTTLED CLAY 9.00m-11.00m LIGHT GREY CLAY 11.00m-14.00m RED AND WHITE CLAY 14.00m-15.25m FINE SAND	0.00m-12.50m INNER LINING - CASING = Pvc 14.00m-15.25m INNER LINING - SCREEN = Pvc		14.00m-15.25m Sand	1981-11-04	1240	North East
91344	Domestic					1970-01-01	1307	North East
132804	Domestic	0.00m-0.30m TOP SOIL 0.30m-6.00m GREY CLAY 6.00m-12.00m RED & ORANGE CLAY 12.00m-14.00m LIGHT BLUE CLAY 14.00m-16.50m RED & ORANGE CLAY 16.50m-17.00m FINE SAND 17.00m-18.00m GREY CLAY				1997-04-30	1324	East
57495	Domestic	0.00m-0.30m TOP SOIL 0.30m-2.00m RED YELLOW & GREY CLAY 2.00m-5.00m YELLOW & GREY CLAY 5.00m-14.00m RED YELLOW & GREY SANDY CLAY 14.00m-17.50m RED, YELLOW & GREY CLAY 17.50m-17.80m FINE TO MEDIUM SAND 17.80m-22.00m WHITE CLAY 22.00m-23.50m LIGNIOUS CLAY 23.50m-39.00m SOFT MUDSTONE 39.00m-57.00m HARD MUDSTONE 57.00m-67.00m SANDSTONE	0.00m-39.00m INNER LINING - CASING = Galvanised Iron 56.00m-67.00m INNER LINING - SCREEN = Galvanised Iron			1989-03-06	1324	East
74961	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SUB SOIL 0.90m-2.70m CLAY 2.70m-5.20m FINE SANDY SLOPPY CLAY 5.20m-11.00m SLOPPY FINE CLAYEY SAND 11.00m-13.40m COARSE SANDY BLACK CLAY 13.40m-29.50m MARINE CLAY AND SHELL 29.50m-30.10m HARD SANDSTONE 30.10m-38.70m SANDSTONE WITH LAYERS OF SHELL	0.00m-30.20m INNER LINING - CASING = Galvanised Iron			1976-06-09	1343	West
91606	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.91m SAND 0.91m-3.96m CLAY 3.96m-12.19m MOTTLEY CLAY 12.19m-17.07m BASALTIC CLAY 17.07m-18.29m BASALTIC IRONSTONE 18.29m-25.90m BASALT	0.00m-25.90m INNER LINING - CASING = Not Known 18.28m-25.90m INNER LINING - SCREEN = Not Known			1973-11-26	1376	North
91553	Stock					1970-12-31	1409	North East



Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
91777	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-2.70m SAND 2.70m-7.30m CLAY 7.30m-13.20m BASALTIC CLAY 13.20m-25.90m BASALT 25.90m-34.10m BROWN COAL & MEDIUM SAND 34.10m-38.00m MUDSTINE 38.00m-42.00m SANDSTONE & MUDSTONE 42.00m-56.00m SANDSTONE	38.00m-56.00m INNER LINING - CASING = Pvc 50.00m-56.00m INNER LINING - SCREEN = Pvc		50.00m-56.00m Shale	1990-04-05	1439	North
75018	Domestic					1988-01-01	1552	West
WRK079493	Irrigation	0.00m-0.30m SOIL 0.30m-12.00m CLAY 12.00m-57.50m WESTERN PORT GROUP 57.50m-60.00m BASEMENT	0.00m-49.00m INNER LINING - CASING = Pvc 49.00m-60.00m INNER LINING - SCREEN = Stainless Steel 8.00m-49.00m OUTER LINING - GRAVEL = Cement			2014-06-03	1557	South West
WRK039051	Irrigation	0.00m-0.61m SAND LOAM 0.61m-34.29m FATTY SAND 34.29m-41.14m CORAL THICK HEAVY AND HARD	0.00m-34.90m INNER LINING - CASING = Steel 34.44m-41.14m INNER LINING - SCREEN = Steel			1975-03-25	1574	West
91491	Domestic, Stock					1970-12-31	1585	North
74973	Domestic, Stock	0.00m-0.50m TOP SOIL 0.50m-3.00m WHITE FINE SAND 3.00m-14.00m VOLCANIC CLAY 14.00m-18.00m DARK GREY CLAY 18.00m-25.00m BROWN COAL AND WOOD 25.00m-28.80m SOFT MUDSTONE	0.00m-18.00m INNER LINING - CASING = Pvc 18.00m-28.80m INNER LINING - SCREEN = Pvc		18.00m-28.80m Coal	1979-06-26	1602	West
WRK039050	Commercial, Domestic, Irrigation, Stock	0.00m-0.61m DARK LOAM SOIL 0.61m-1.52m GREY BROWN SANDS 1.52m-3.66m REDDISH AND GREY CLAY 3.66m-7.62m GREY REDDISH AND SANDY CLAY 7.62m-12.80m REDDISH SAND 12.80m-18.90m DARD FINE SAND BASALT 18.90m-22.86m DARK FINE SANDY CLAY 22.86m-29.87m PASTY GREENY GREY CLAY STONES 29.87m-38.10m SHELLY CLAY 38.10m-50.59m FUCKING CRAP	0.00m-40.89m INNER LINING - CASING = Not Known 40.23m-50.59m INNER LINING - SCREEN = Not Known 39.62m-0.00m OUTER LINING - GRAVEL = Seal			1974-08-22	1634	West
74969	Commercial, Domestic, Irrigation, Stock	40.84m-48.40m CORAL AND SMALL SHELLS AND SAND	0.00m-41.65m INNER LINING - CASING = Not Known 42.98m-50.59m INNER LINING - SCREEN = Not Known 41.45m-0.00m OUTER LINING - GRAVEL = Seal		42.98m-50.59m Limestone	1978-04-10	1641	West
WRK092946	Irrigation	0.00m-0.30m Top soil 0.30m-30.00m westernport group 30.00m-45.00m BASALT	0.00m-31.50m INNER LINING - CASING = Pvc 0.00m-31.50m OUTER LINING - GRAVEL = Cement			2017-02-28	1664	North East
75026	Domestic					1988-01-01	1666	West
75028	Stock					1988-01-01	1675	South West
WRK981071							1715	North East
WRK039048	Irrigation	0.30m-0.91m SANDY LOAM 0.91m-7.01m SANDY CLAYS 7.01m-8.23m RED SAND STONE 8.23m-10.36m YELLOW SANDSTONE 10.36m-12.19m COURSE SAND 12.19m-35.66m SEA SLIME 35.66m-41.76m SEA SLIME SHELLY 41.76m-53.90m CORAL	0.00m-53.90m INNER LINING - CASESCRN = Not Known			1970-12-07	1737	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK039047	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-0.91m CLAY 0.91m-6.40m RED SANDY CLAY 6.40m-11.28m SLOPPY RED SANDY CLAY 11.28m-11.89m YELLOW SAND WITH SANDSTONE PIECES 11.89m-12.80m IGNITE AND CLAY 12.80m-16.46m BLACK CLAY 16.46m-18.90m STICKY MARINE CLAY WITH SAND 18.90m-22.86m MARINE CLAY SILT LITTLE SHELL WITH ROCK PIECES 22.86m-38.10m MARINE SILT LITTLE SHELL 38.10m-39.62m DARK MARINE SILT AND SHELL 39.62m-40.54m LIMESTONE SHELL 40.54m-42.67m CORALY SHELL 42.67m-42.98m BROWN COAL 42.98m-46.33m HARD SANDSTONE 46.33m-51.82m LAYERS OF ROCK AND SHELL LITTLE SAND 51.82m-52.10m LITTLE SAND AND SHELL MUDSTONE	0.00m-39.62m INNER LINING - CASING = Not Known 39.62m-52.12m INNER LINING - SCREEN = Not Known			1970-12-07	1742	West
75025	Domestic					1988-01-01	1744	West
74960	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-4.60m SANDY CLAY 4.60m-12.20m FINE SANDY CLAY 12.20m-13.10m GREY CLAY 13.10m-16.10m MARINE CLAY WITH COARSE SAND 16.10m-20.10m MARINE SILT AND SHELL WITH PIECES HARD SANDSTONE 20.10m-20.70m LIMESTONE 20.70m-21.90m CLAYEY LIMESTONE AND SHELL 21.90m-23.50m MARINE CLAY AND SHELL 23.50m-27.40m LIGNITE				1976-03-26	1746	West
WRK989648							1757	East
WRK039049	Irrigation	0.00m-0.61m SUB SOIL SANDY LOAM 0.61m-4.27m YELLOW CLAY 4.27m-7.32m SANDY CLAYS 7.32m-8.23m RED SAND (WATER) 8.23m-12.19m YELLOW SAND STONE 12.19m-26.21m SEA SLIME BLACK AND MILK STONES 26.21m-40.54m SEA SLIME GREY AND SHEDDED GRAVEL 40.54m-47.50m CORAL AND SEA SHELL	0.00m-47.50m INNER LINING - CASESCRN = Not Known			1971-10-16	1779	West
75021	Stock					1988-01-01	1783	West
WRK047106		0.00m-2.00m TOPSOIL 2.00m-8.00m COFFE ROCK 8.00m-16.00m RED CLAY 16.00m-33.00m GREY CLAY 33.00m-53.00m MEDIUM MUDSTONE 53.00m-54.00m HARD MUD STONE	0.00m-36.00m INNER LINING - CASING = Pvc 36.00m-54.00m INNER LINING - SCREEN = Pvc 0.00m-33.00m OUTER LINING - GRAVEL = Seal			2008-06-14	1791	West
91477	Stock					1970-12-31	1904	East
91478	Domestic, Stock					1970-12-31	1940	East
91773	Domestic, Stock	0.00m-0.50m TOPSOIL 0.50m-2.00m WHITE SAND 2.00m-17.00m SANDY ORANGE YELLOW CLAY 17.00m-21.50m HONEYCOMB BASALT WITH SOME CLAY 21.50m-22.50m GREY CLAY 22.50m-23.00m COAL AND WOOD				1990-03-06	1971	North East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK042925	Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m RED CLAY 0.60m-0.90m SUBSOIL & IRONSTONE 0.90m-1.20m RED CLAY 1.20m-3.60m SANDY RED & GREY CLAY 3.60m-10.60m CLAYEY MEDIUM SAND 10.60m-14.30m BLACK CLAYEY SILT 14.30m-17.40m BLACK CLAYEY SILT AND MEDIUM SAND 17.40m-17.60m SANDSTONE 17.60m-18.20m MARINE SILT & SANDSTONE 18.20m-21.90m MARINE CLAYEY SILT & SAND 21.90m-29.30m MARINE SILT & SHELL 29.30m-48.70m MARINE SILT, SHELL & THIN LAYERS SANDSTONE 48.70m-54.20m LIMESTONE & CORAL 54.20m-54.80m BASALT	-0.01m-48.70m INNER LINING - CASING = Steel 0.00m-11.00m INNER LINING - CASING = Pvc 48.70m-54.80m INNER LINING - SCREEN = Pvc 9.00m-11.00m OUTER LINING - GRAVEL = Cement			1991-11-23	1987	South West
WRK043150	Domestic, Irrigation, Stock					1970-12-31	1993	South West
91476	Stock					1970-12-31	1995	East

Boreholes WMIS Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Direct
91728		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		21/09/1985	36.58		100	367	North East
91030		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		06/10/1969	50.29		100	402	East
74985		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		06/12/1982	32.30		100	532	West
91716		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		26/01/1984	24.38		100	670	North East
91713		Private Individual/Corporation		Percussion (cable)	Abandoned	02/02/1983	19.00		100	758	North West
91677		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		08/02/1982	12.80		100	802	East
91708		Private Individual/Corporation	Domestic & Stock water supply	Rotary (diamond/drag bit)		19/12/1983	53.00		100	1154	South East
91674		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		04/11/1981	15.26		100	1239	North East

Boreholes Earth Resources Data Source: © The State of Victoria, Department of Economic Development, Jobs, Transport and Resources 2015. Creative Commons Attribution 3.0 Australia

### Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Direct
N/A	No records within buffer						

Boreholes FedUni Data Source: © Federation University Australia

## Historical Mining Activity - Shafts

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Historical Mining Activity - Shafts

Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Historical Mining Activity Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources

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Geology 1:250,000

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Geological Units

What are the Geological Units onsite?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qd1	inland dune deposits (Qd1): generic	Sand, silt, clay: friable to consolidated; well sorted; includes both lunette deposits and deposits of longitudinal dunes	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant)	1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qb	alluvium and colluvium( Qb): generic	Sand, silt, clay, gravel, diamictite; alluvial and colluvial deposits	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant); gravel material (significant)	1:250,000
Qd1	inland dune deposits (Qd1): generic	Sand, silt, clay: friable to consolidated; well sorted; includes both lunette deposits and deposits of longitudinal dunes	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qg	coastal lagoon deposits (Qg): generic	Silt, clay: dark grey to black; variably consolidated	Holocene to Holocene	silt material (significant); clay lithology (significant)	1:250,000
Qm1	swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	Pleistocene to Holocene	mud (major proportion); silt material (significant); clay lithology (significant); peat (minor proportion)	1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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# Geology

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Geological Structures

What are the Geological Faults or Faulted Contacts onsite?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

What are the Dykes, Marker Beds and Veins onsite?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones onsite (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

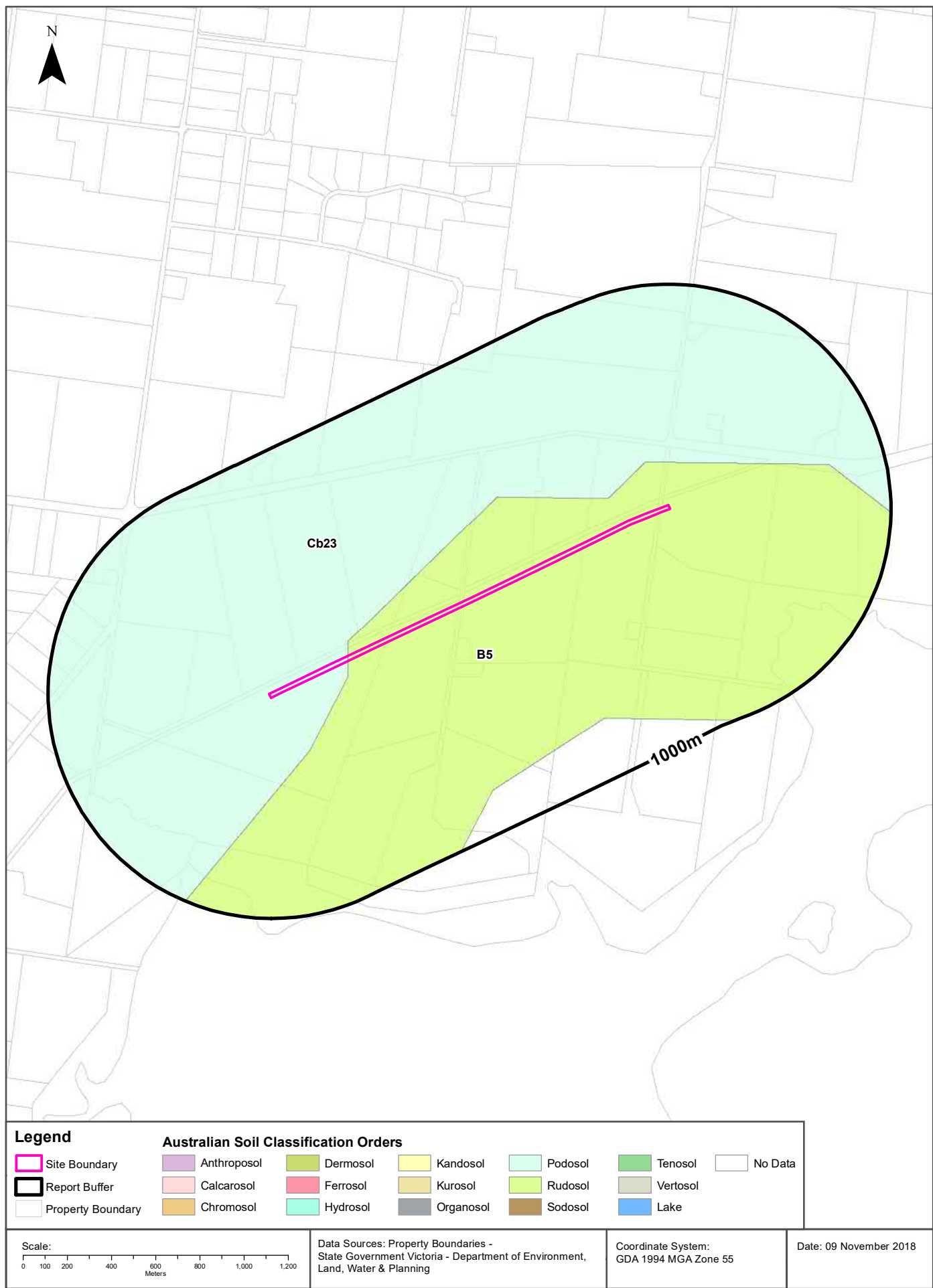
What are the Dykes, Marker Beds and Veins within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones within the dataset buffer (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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## Soil Landscapes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Atlas of Australian Soils

Australian soil types within the dataset buffer:

Symbol	Soil Order	Map Unit Description	Distance
B5	Rudosol	Coastal plains with dunes, swamps, and lakes: plains and dunes of siliceous sands (Uc1.2) and silty soils (Um1) and plains of clay soils (Uf) and (Ug); some terrace remnants where the plains merge with the stream valleys of dark, deep, porous loamy soils (Um6.12) on the lower terraces, and hard alkaline soils (Dr2.23) on the higher terraces.	0m
Cb23	Podosol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests. and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m

Atlas of Australian Soils: CSIRO

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Victorian Soil Type Mapping

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Soil Landscapes

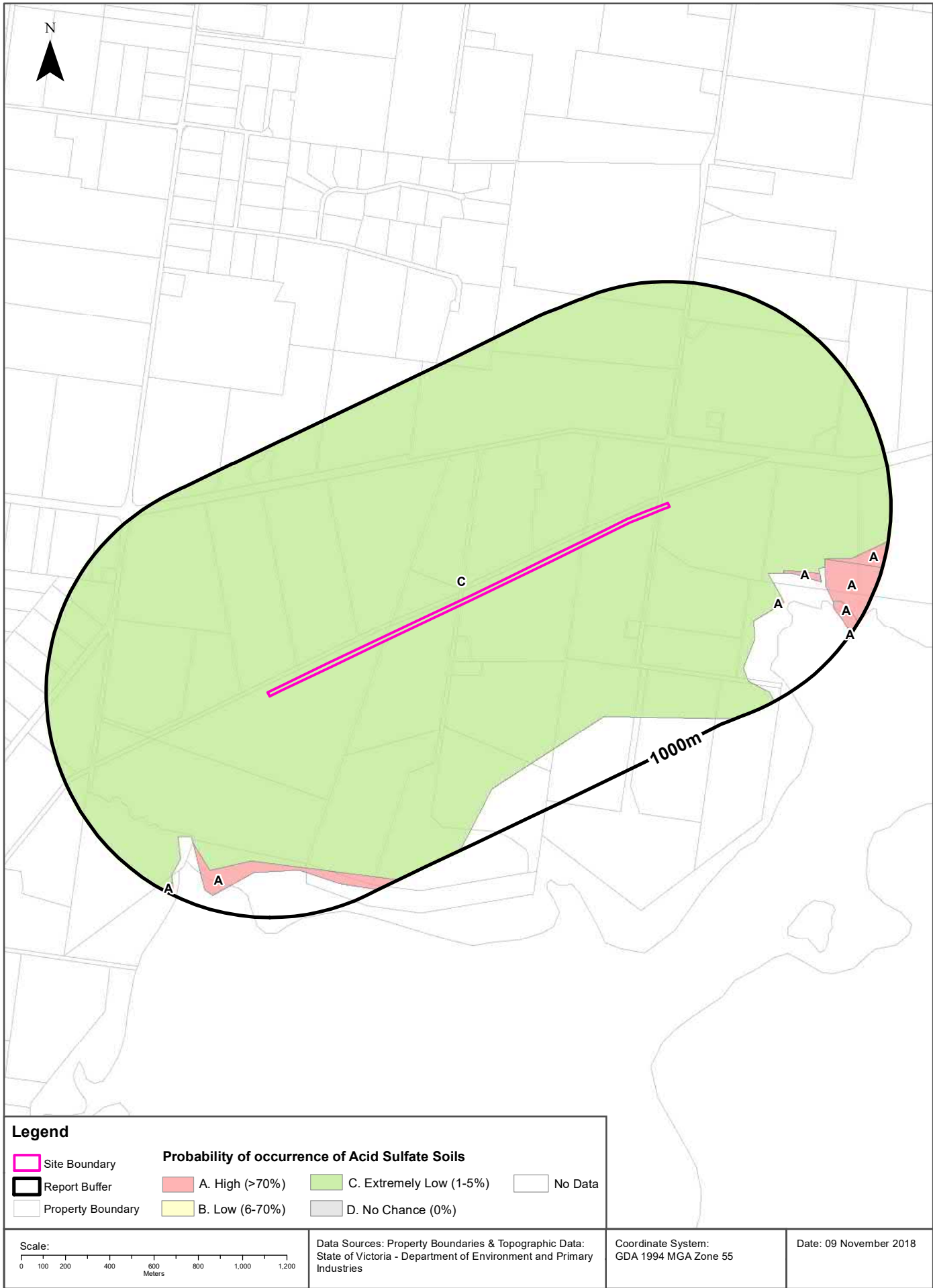
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Victorian Soil Type Mapping

Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance
CHAB	Brown Chromosols	0m
POAL	Aeric Podosols	0m
HYED	Redoxic Hydrosols	979m

Victorian Soil Type Mapping Data Source: Department of Economic Development, Jobs, Transport and Resources  
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## Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Atlas of Australian Acid Sulfate Soils

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

PROBCLASS	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m
A	High Probability of occurrence. >70% chance of occurrence.	588m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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# Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)





## Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Coastal Acid Sulfate Soils

What are the on-site Coastal Acid Sulfate Soil types?

Coastal Acid Sulfate Soil Types
There are no Acid Sulfate areas onsite

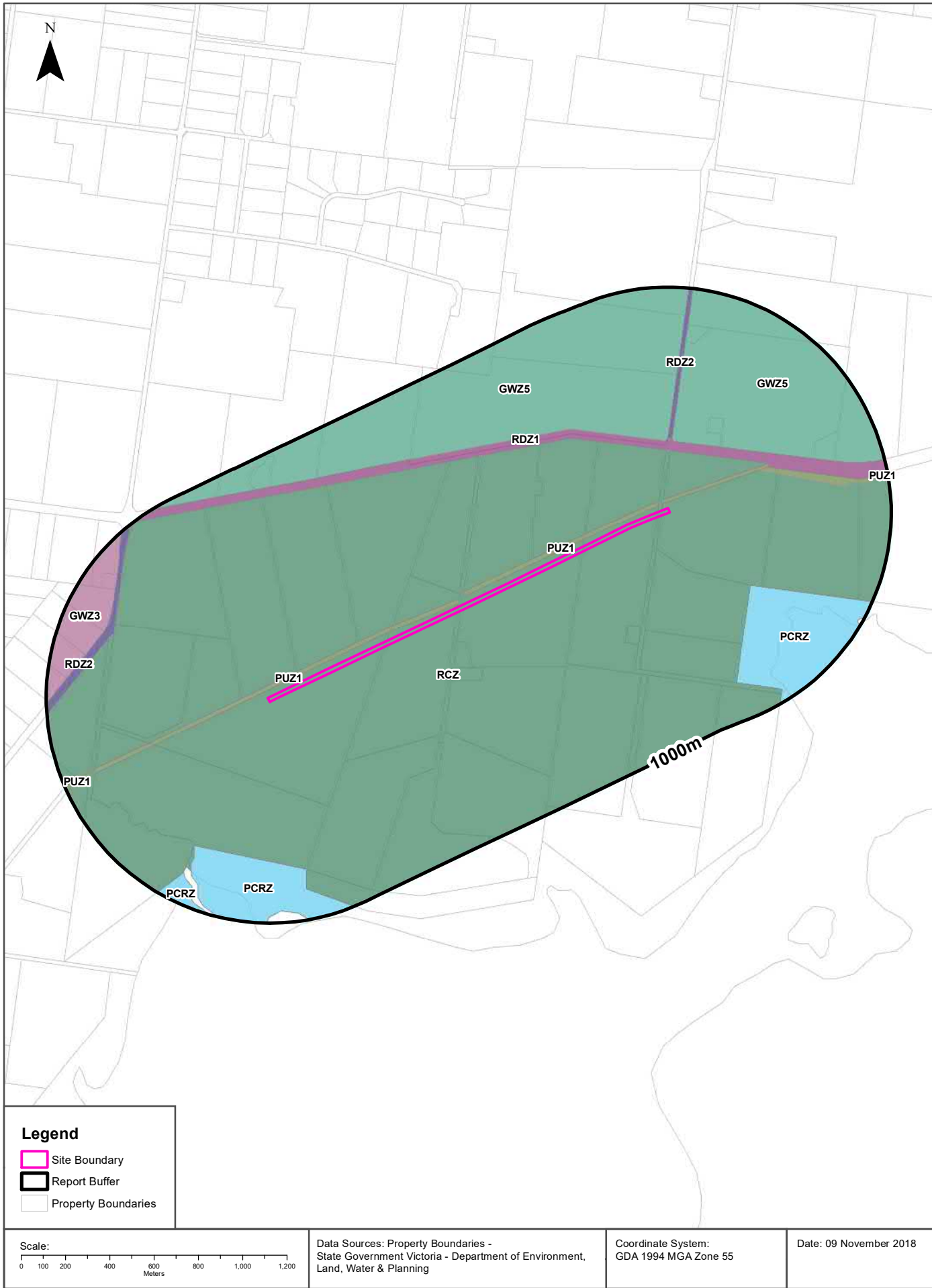
What are the Coastal Acid Sulfate Soil types within the dataset buffer?

Coastal Acid Sulfate Soil Types	Distance	Direction
Prospective	163m	South East
Made land	563m	South West
Made land	913m	South

Coastal Acid Sulfate Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Planning Zones

Planning zones within the dataset buffer:

Zone Code	Description	Distance	Direction
RCZ	RURAL CONSERVATION ZONE	0m	Onsite
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	17m	South West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	22m	North East
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	32m	East
RDZ1	ROAD ZONE - CATEGORY 1	260m	North
GWZ5	GREEN WEDGE ZONE - SCHEDULE 5	303m	North East
GWZ5	GREEN WEDGE ZONE - SCHEDULE 5	307m	North
RDZ2	ROAD ZONE - CATEGORY 2	314m	North East
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	487m	South East
RDZ2	ROAD ZONE - CATEGORY 2	755m	West
GWZ3	GREEN WEDGE ZONE - SCHEDULE 3	795m	West
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	862m	South West
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	869m	South West

Planning Zone Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Planning Overlays

Planning overlays within the dataset buffer:

Zone Code	Description	Distance	Direction
ESO1	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1	0m	Onsite
SLO2	SIGNIFICANT LANDSCAPE OVERLAY - SCHEDULE 2	0m	Onsite
BMO	BUSHFIRE MANAGEMENT OVERLAY	8m	South
HO21	HERITAGE OVERLAY (HO21)	62m	East
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	89m	North West
PAO1	PUBLIC ACQUISITION OVERLAY 1	283m	East
PAO1	PUBLIC ACQUISITION OVERLAY 1	287m	North
BMO	BUSHFIRE MANAGEMENT OVERLAY	623m	West
PAO1	PUBLIC ACQUISITION OVERLAY 1	748m	West
PAO1	PUBLIC ACQUISITION OVERLAY 1	967m	West
PAO1	PUBLIC ACQUISITION OVERLAY 1	984m	West

Planning Overlay Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

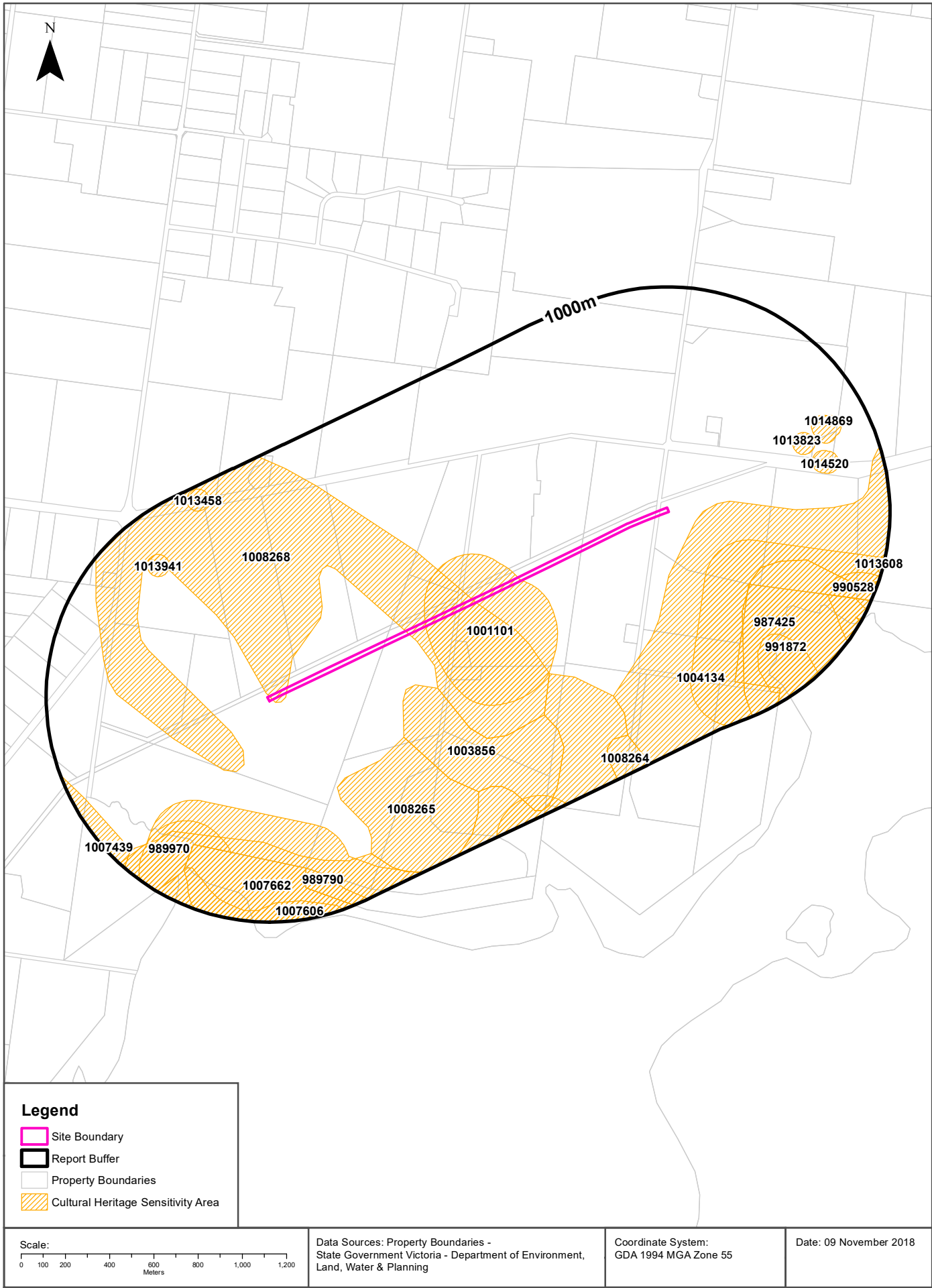
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Victorian Heritage Register

What are the Victorian Heritage Register items located within the dataset buffer?:

VHR Number	Description	Distance	Direction
N/A	No records within buffer		

Victorian Heritage Register Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Cultural Heritage Sensitivity

Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2007, within the dataset buffer:

Map Id	Distance	Direction
1001101	0m	Onsite
1008268	0m	Onsite
1004134	127m	East
1003856	218m	South
987425	287m	South East
1008265	410m	South
1007662	435m	South East
991872	487m	South
989970	632m	South West
1013823	633m	North East
1014520	685m	East
1007606	715m	South
1013941	723m	West
1014869	743m	North East
989790	774m	South West
990528	776m	East
1008264	827m	South East
1013458	890m	West
1007439	915m	North West
1013608	971m	East

Cultural Heritage Sensitivity Data Custodian: State Government Victoria - Dept of Planning and Community Development  
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# Natural Hazards

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
27	Designated Bushfire Prone Area	LEGL./18-238	CASEY	16/05/2018	0m	Onsite

Bushfire Prone Area Data Custodian: State Government Victoria - Dept of Transport, Planning & Local Infrastructure  
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## Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
N/A	No records within buffer									

Fire History Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records within buffer					

Flood Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

## Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	0m	East
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	159m	East
Current (2009) inundation to 1-in-100 year storm tide level	207m	South East
Projected 82cm sea level rise by 2100	392m	South East
Projected 47cm sea level rise by 2070	526m	South East
Projected 20cm sea level rise by 2040	698m	South
Current (2009) sea level	700m	South West

Victorian Coastal Inundation Sea Level Rise Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Ecological Constraints - Native Vegetation 2005 & RAMSAR Wetlands

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Distance
GipP0048	Heathy Woodland	0048	Heathy Woodlands	Dry and/or better drained	Gippsland Plain	Least Concern	Common	0m
GipP0175	Grassy Woodland	0175	Lower Slopes or Hills Woodlands	Grassy	Gippsland Plain	Endangered	Common	0m
GipP0083	Swampy Riparian Woodland	0083	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	228m
GipP0009	Coastal Saltmarsh	0009	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Common	328m
GipP0053	Swamp Scrub	0053	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	761m
GipP0003	Damp Sands Herb-rich Woodland	0003	Herb-rich Woodlands	Damp Sands	Gippsland Plain	Vulnerable	Common	826m
GipP0140	Mangrove Shrubland	0140	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Naturally Restricted	982m

Native Vegetation Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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### RAMSAR Wetlands

What RAMSAR wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
10	Western Port	Western Port	486m	South East

RAMSAR Wetland Area Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Groundwater Dependent Ecosystems Atlas

What GDEs exist within the dataset buffer?

GDE Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		Moderate potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	6m
Aquatic		Known GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		425m
Aquatic	LANGWAR RIN CREEK	High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	River	Unconsolidated sedimentary	690m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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# Inflow Dependent Ecosystems Likelihood

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 12)

### Inflow Dependent Ecosystems Likelihood

What IDEs exist within the dataset buffer?

GDE Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		6	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		7	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	6m
Terrestrial		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	15m
Terrestrial		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	53m
Terrestrial		4	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	328m
Aquatic		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		425m
Aquatic	LANGWAR RIN CREEK	9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	River	Unconsolidated sedimentary	690m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology  
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**Address: Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810  
(Section 13)**

**Date: 10 Nov 2018 10:27:42**

**Reference: LS004582 EP**

**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. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.



## Table of Contents

Location Confidences.....	2
Dataset Listings .....	3
Site Location Aerial .....	5
Topographic Features.....	6
Elevation Contours.....	7
EPA Records.....	8
Waste Management Facilities .....	14
Former Gasworks.....	15
Historical Business Activities.....	16
Historical Aerial Imagery & Maps .....	21
Features of Interest .....	42
Hydrogeology & Groundwater .....	44
Groundwater Boreholes .....	46
Historical Mining Activity .....	54
Geology .....	55
Soil Types.....	59
Acid Sulfate Soils .....	63
Planning Zones .....	67
Planning Overlays .....	69
Heritage.....	71
Natural Hazards .....	74
Ecological Constraints.....	77
Terms & Conditions.....	83

## 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

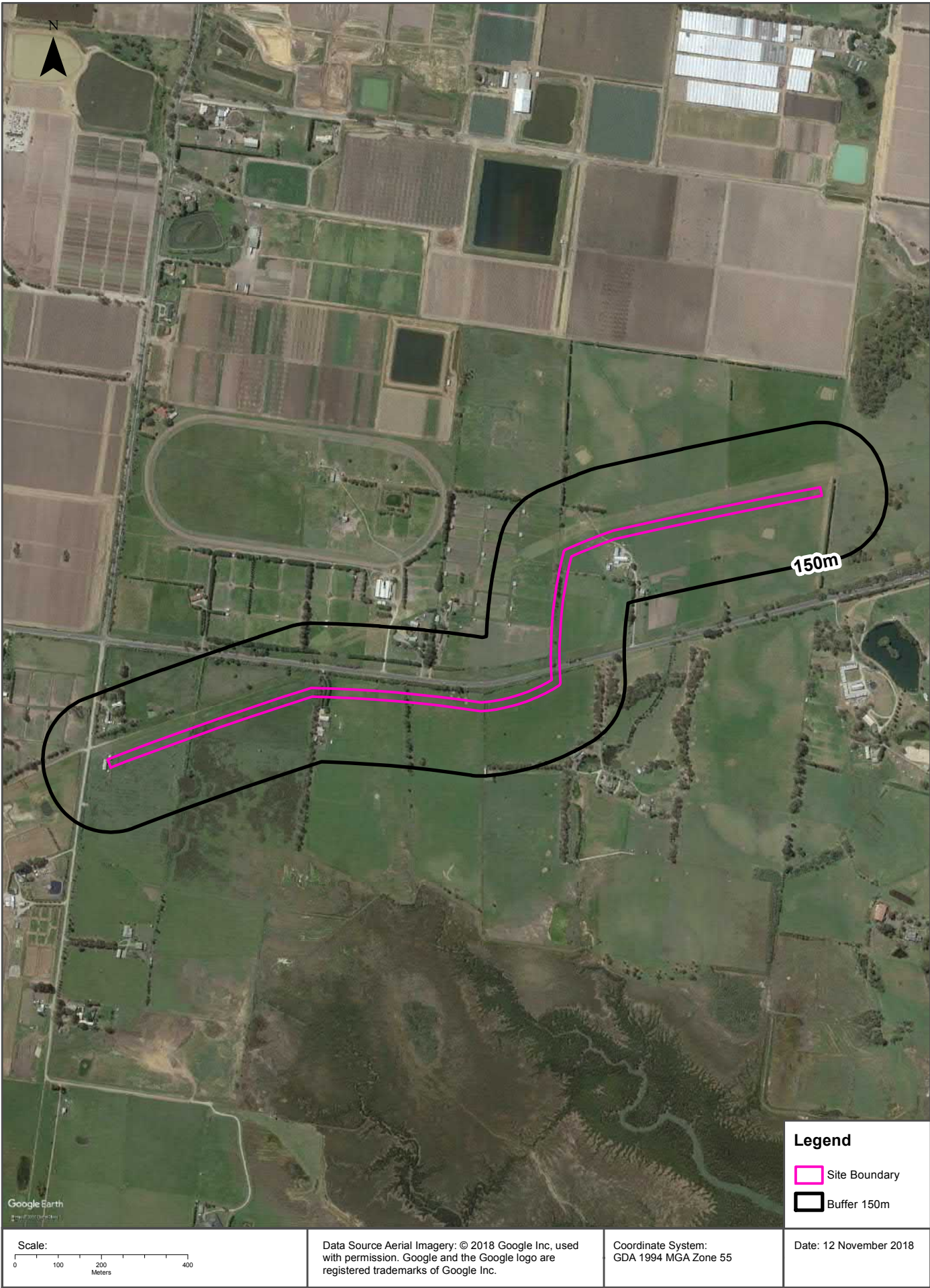
Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	08/10/2018	08/10/2018	Quarterly	-	-	-	-
Current Priority Sites	Environment Protection Authority (Vic)	17/10/2018	31/08/2018	Monthly	1000	0	0	0
Former Priority Sites & other Pollution Notices	Environment Protection Authority (Vic)	19/10/2018	19/10/2018	Monthly	1000	0	0	2
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	17/10/2018	17/10/2018	Monthly	1000	0	0	0
Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	19/09/2018	Monthly	1000	0	0	0
Former Licensed Activities	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	0
Works Approvals	Environment Protection Authority (Vic)	18/10/2018	18/10/2018	Monthly	1000	0	0	1
National Waste Management Facilities Database	Geoscience Australia	06/11/2018	07/03/2017	Quarterly	1000	0	0	0
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000	0	0	0
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	23/10/2018	23/10/2018	Quarterly	1000	0	0	0
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	06/09/2018	06/09/2018	Quarterly	1000	0	0	0
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000	0	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 1960-62 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1960-62 (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
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	0	4
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	3
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	2	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	2	-	-
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	30/10/2018	01/10/2018	Quarterly	2000	0	5	107
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	27/07/2018	17/02/2010	As required	2000	0	1	11
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	18/10/2018	20/07/2018	As required	1000	0	0	0
Geological Units 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	4	-	5
Geological Structures 1:250,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	2	2	2
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000	2	2	3
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000	0	1	1
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	4	5	11
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	08/11/2018	07/11/2018	Monthly	1000	4	5	10
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	12/10/2018	Quarterly	1000	0	0	0
Cultural Heritage Sensitivity	State Government Victoria - Department of Planning and Community Development	12/10/2018	12/10/2018	Quarterly	1000	3	5	16
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	12/10/2018	16/05/2018	Quarterly	1000	1	1	1
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	28/06/2018	Quarterly	1000	0	0	0
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	12/10/2018	18/11/2014	Quarterly	1000	0	0	0
Victorian Coastal Inundation Sea Level Rise	Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000	1	3	8
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000	2	2	5
RAMSAR Wetlands	State Government Victoria - Department of Environment, Land, Water & Planning	28/03/2017	24/06/2013	None planned	1000	0	0	1
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	1	2	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	2	4	9

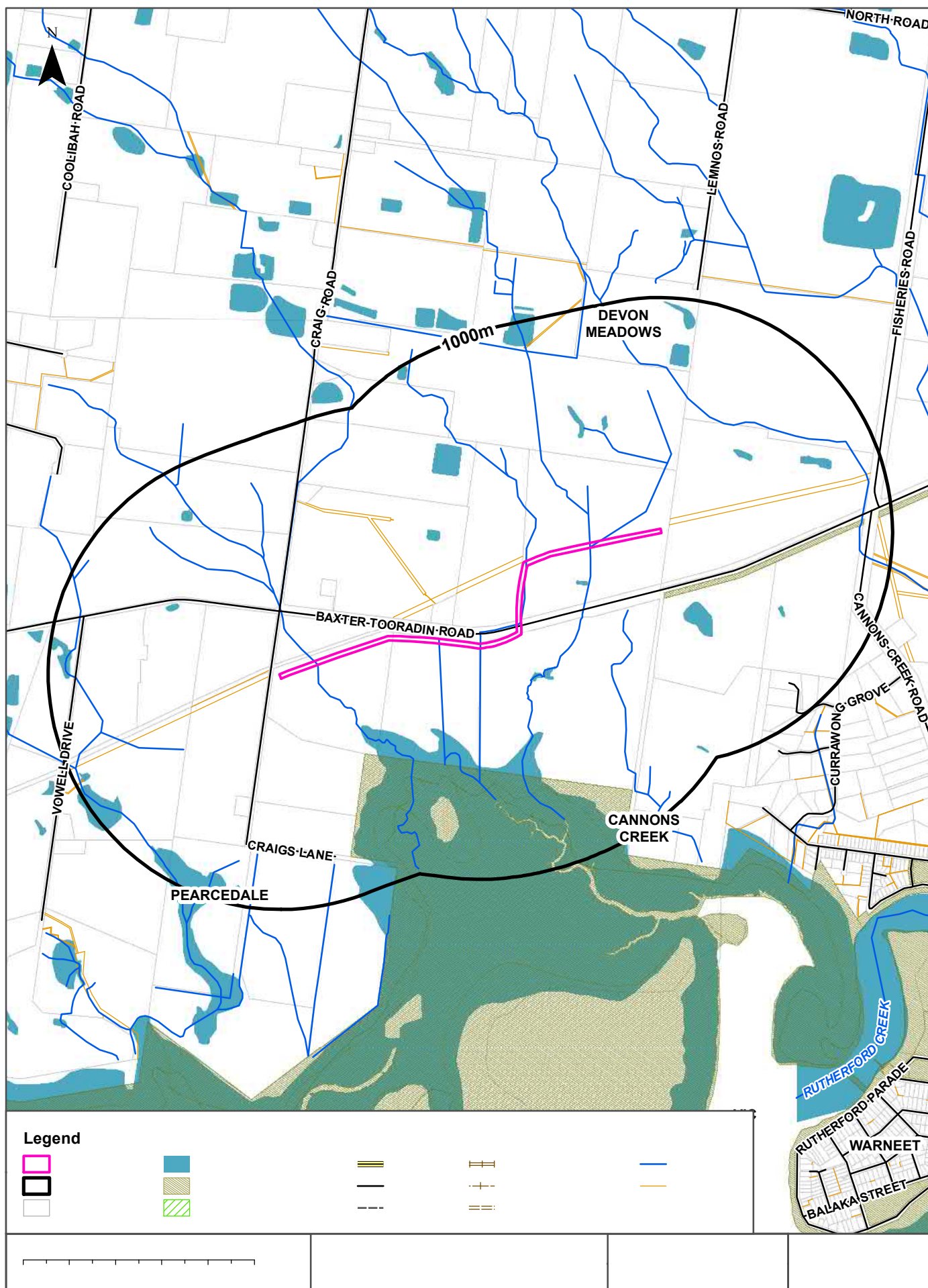
Aerial Imagery 2017

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)**





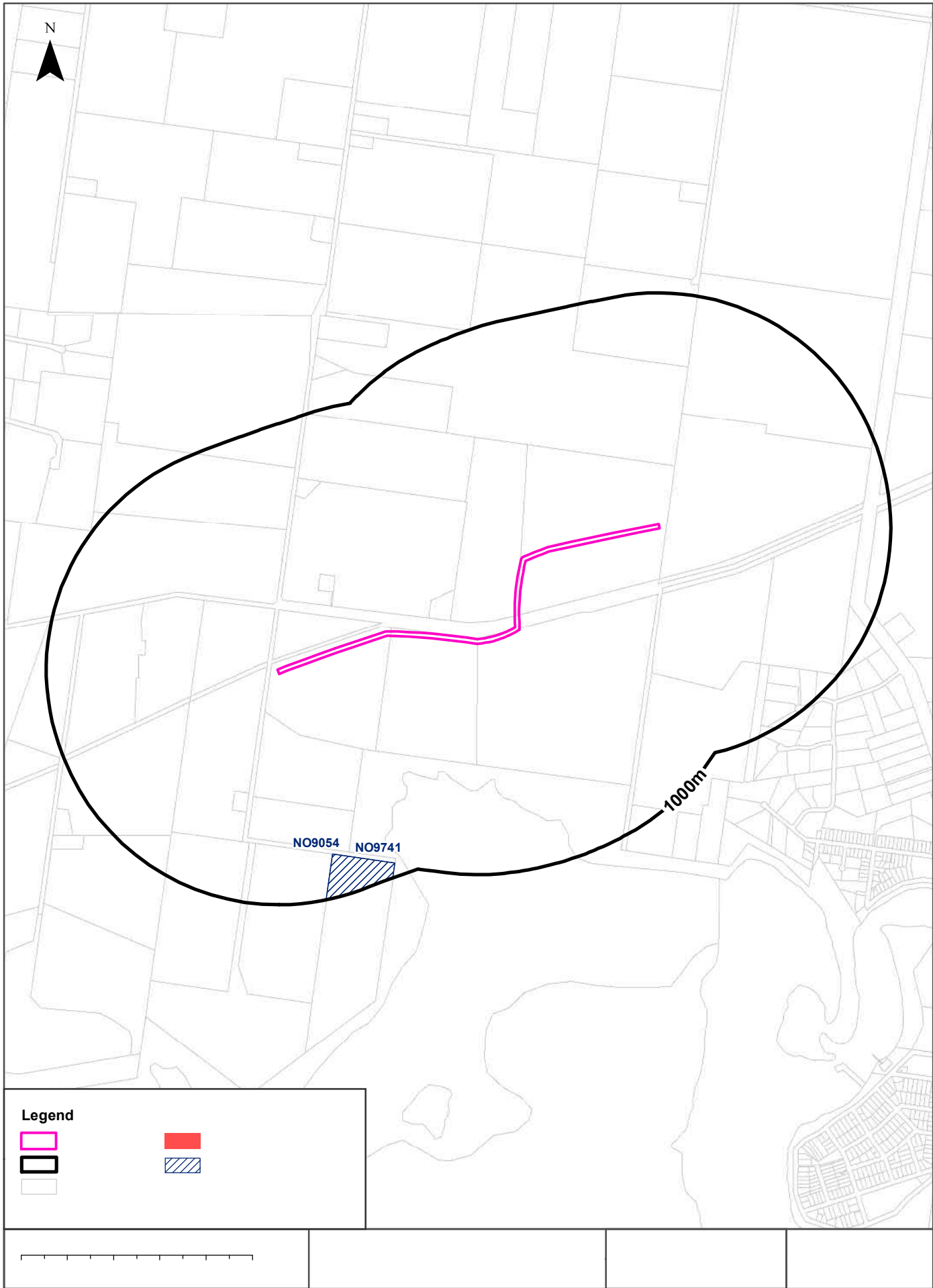
# Elevation Contours (m AHD)

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



EPA Records - Priority Sites & Pollution Notices

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
N/A	No records in buffer					

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

**Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.**

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
NO9741	62A(1)	KINGSTON PLANT HIRE VIC P/L	145 CRAIGS LA	PEARCEDALE	Legacy EPA Database Pollution Notice	Industrial Waste has been dumped at the site, Requires assessment and/or clean up.	08/09/2011	Premise Match	814m	South
NO9054	62A(1)	KINGSTON PLANT HIRE VIC P/L	145 CRAIGS LA	PEARCEDALE	Legacy EPA Database Pollution Notice	Solid Inert Waste has been dumped at the site, Requires assessment and/or clean up.	15/03/2011	Premise Match	814m	South

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Loc Conf	Distance	Direction
N/A	No records in buffer							

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation.

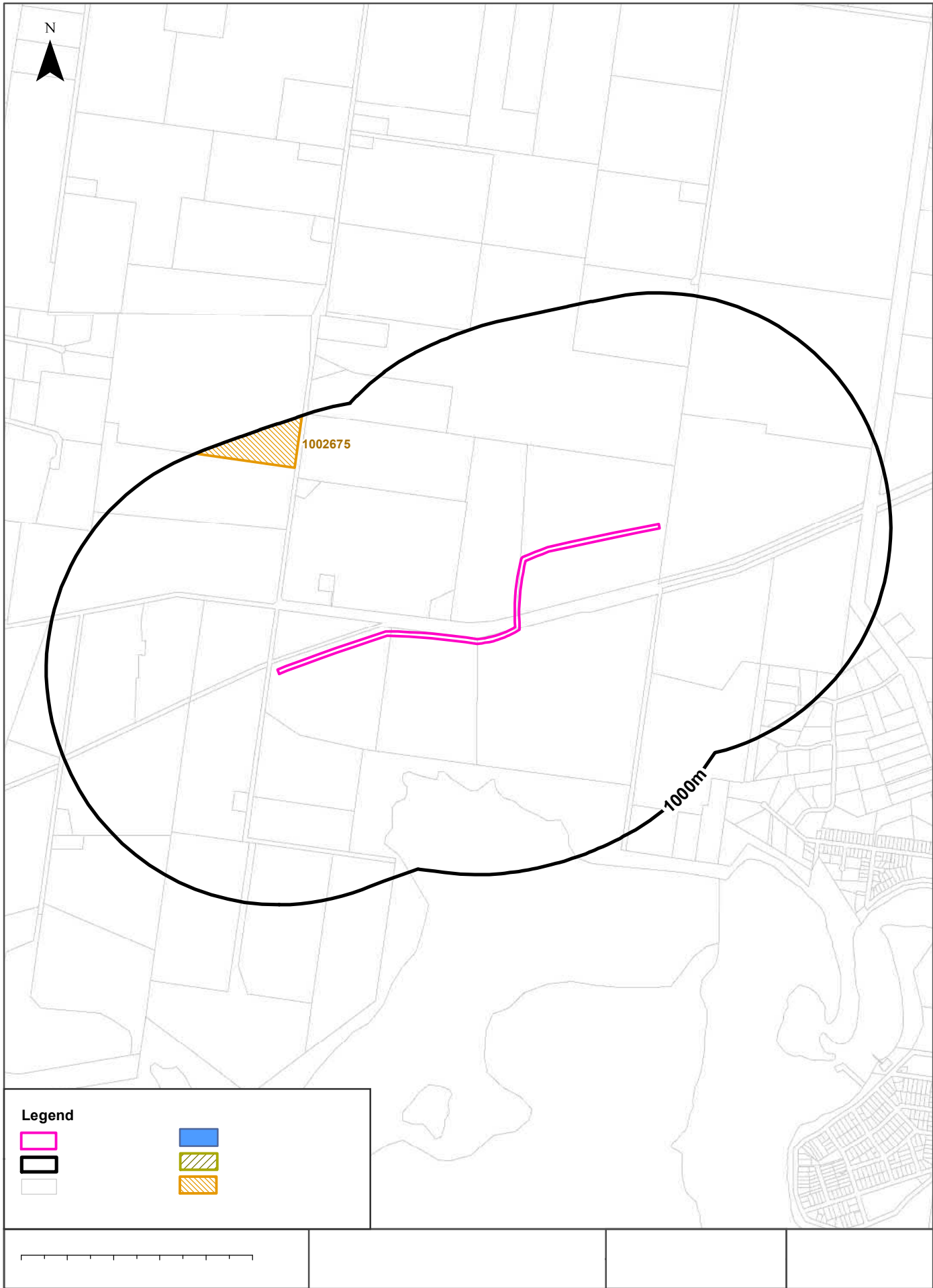
CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Loc Conf	Distance	Direction
N/A	No records in buffer						

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)



EPA Records - Licensed Activities & Works Approvals

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## EPA Records

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer									

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

### Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer						

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

### EPA Works Approvals

EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
1002675	Approved/Is sued	145681	BOGICEVIC FAMILY TRUST	191-195 CRAIG RD PEARCEDALE VIC 3912	PEARCEDALE	A03 Sewage Treatment	Premise Match	796m	North West

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

## Waste Management Facilities

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### 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: Australian Government Geoscience Australia

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### Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
N/A	No records in buffer								

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

### EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste sites within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist' (m)	Direct
N/A	No records in buffer									

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

### EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist' (m)	Direction
No records in buffer								

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

## Former Gasworks

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:

Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources

## Historical Business Directories

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### 1960-62 Business Directory Records Premise or Road Intersection Matches

Records from the 1960-62 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Directory	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

### 1960-62 Business Directory Records Road or Area Matches

Records from the 1960-62 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.	Directory	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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### 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

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

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

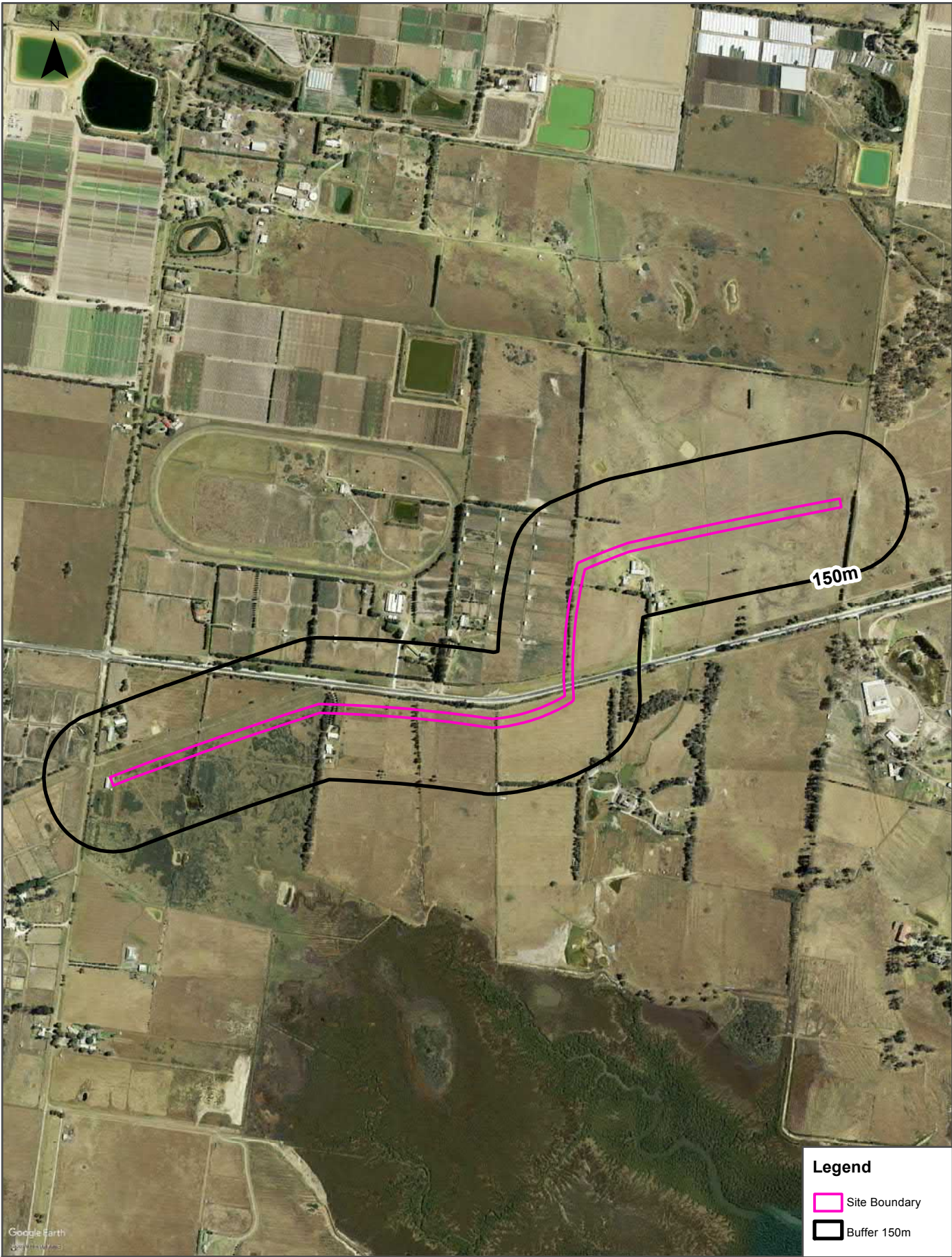
Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

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 2009

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

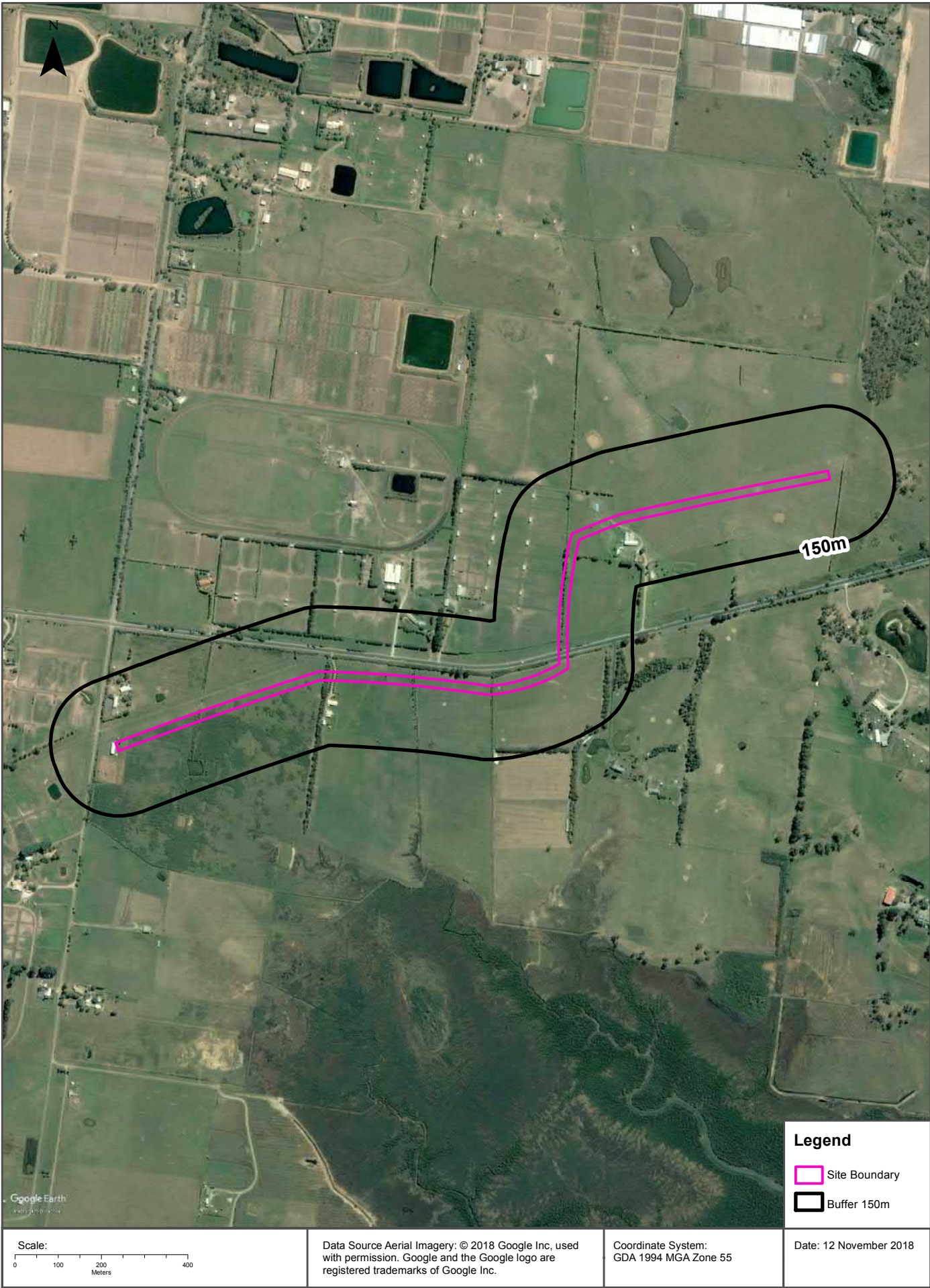


Scale: 0 100 200 400 Meters	Data Source Aerial Imagery: © 2018 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.	Coordinate System: GDA 1994 MGA Zone 55	Date: 12 November 2018
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# Aerial Imagery 2005

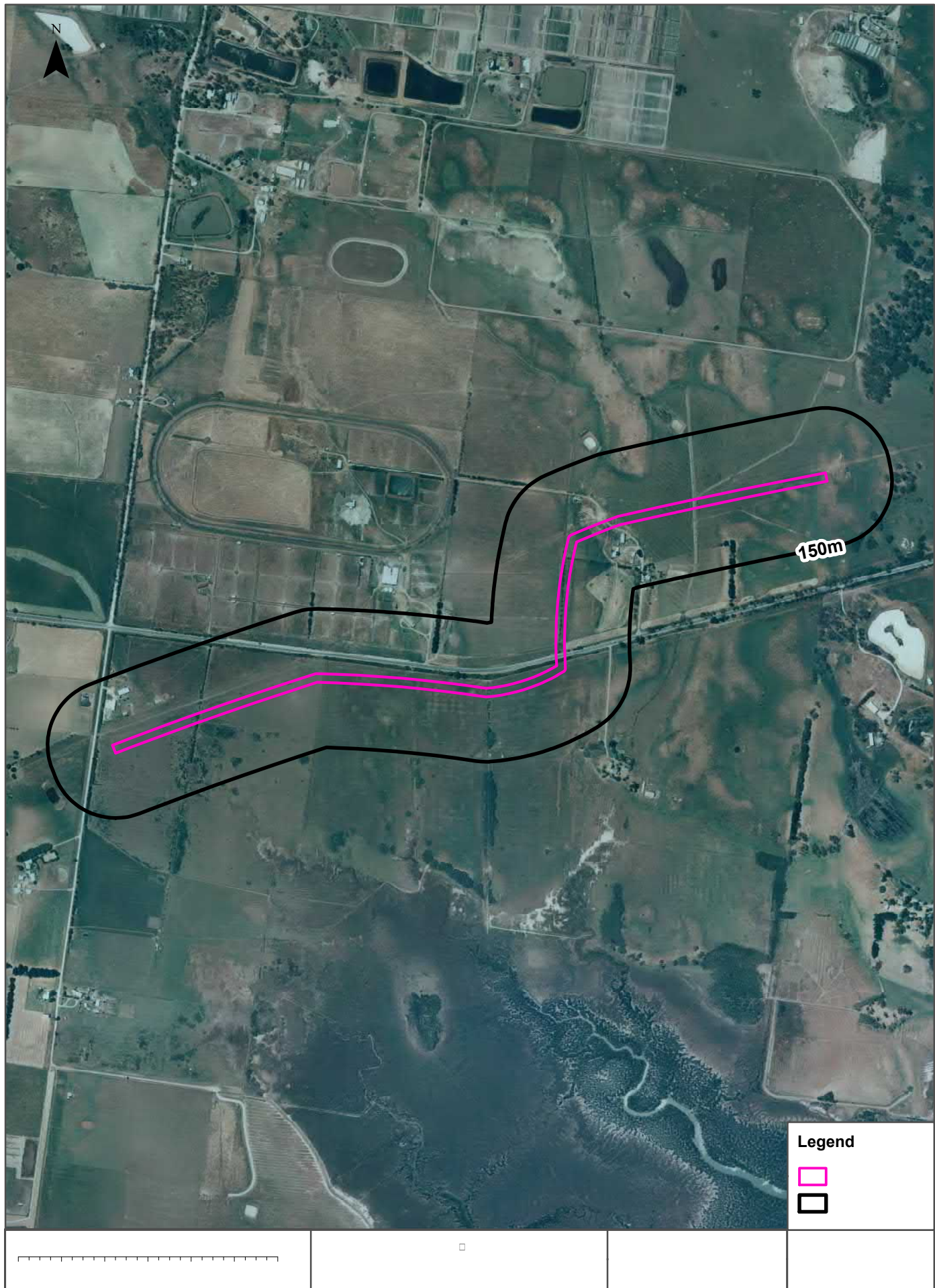
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





Aerial Imagery 1991

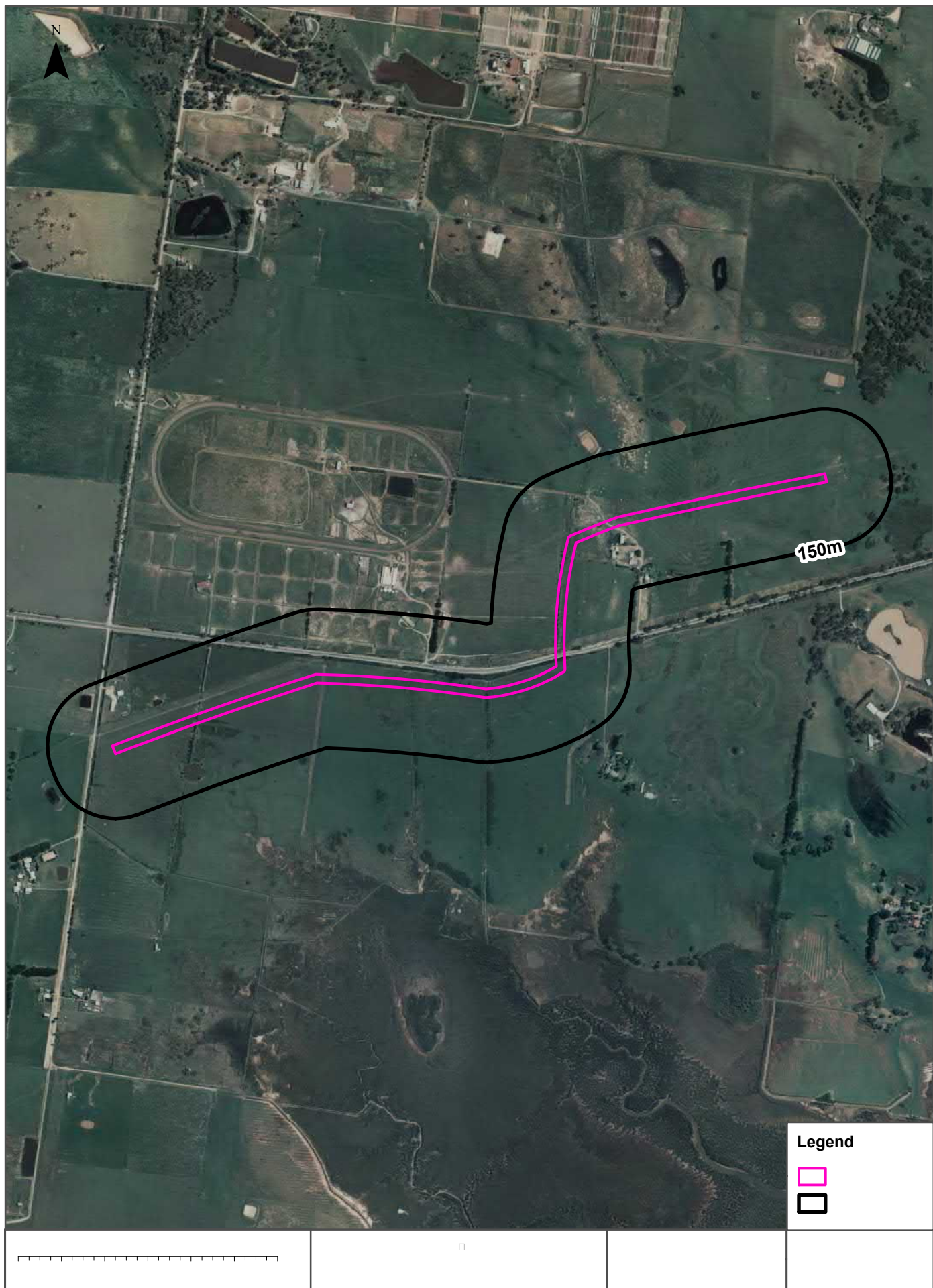
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





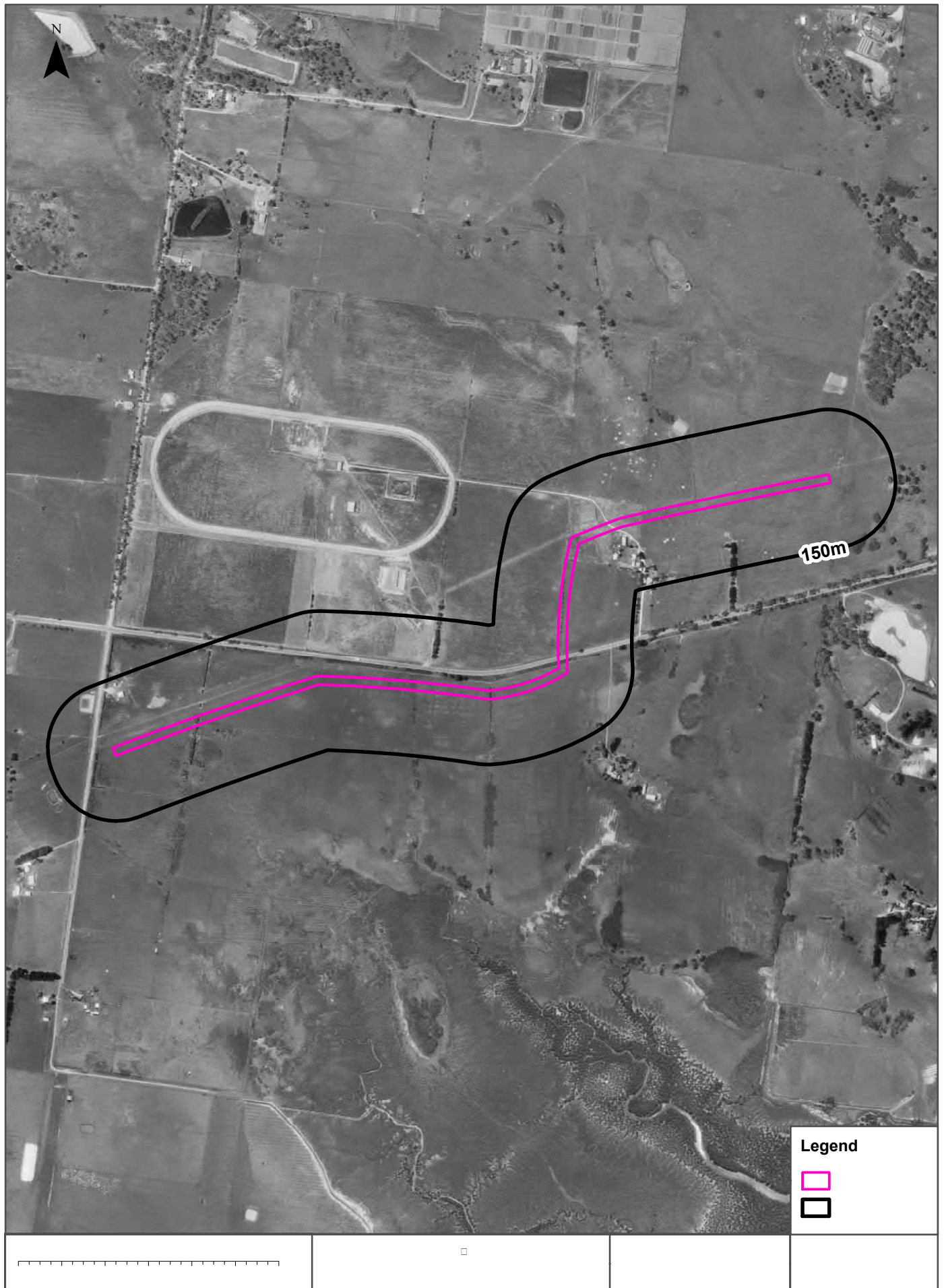
Aerial Imagery 1989

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## Aerial Imagery 1985

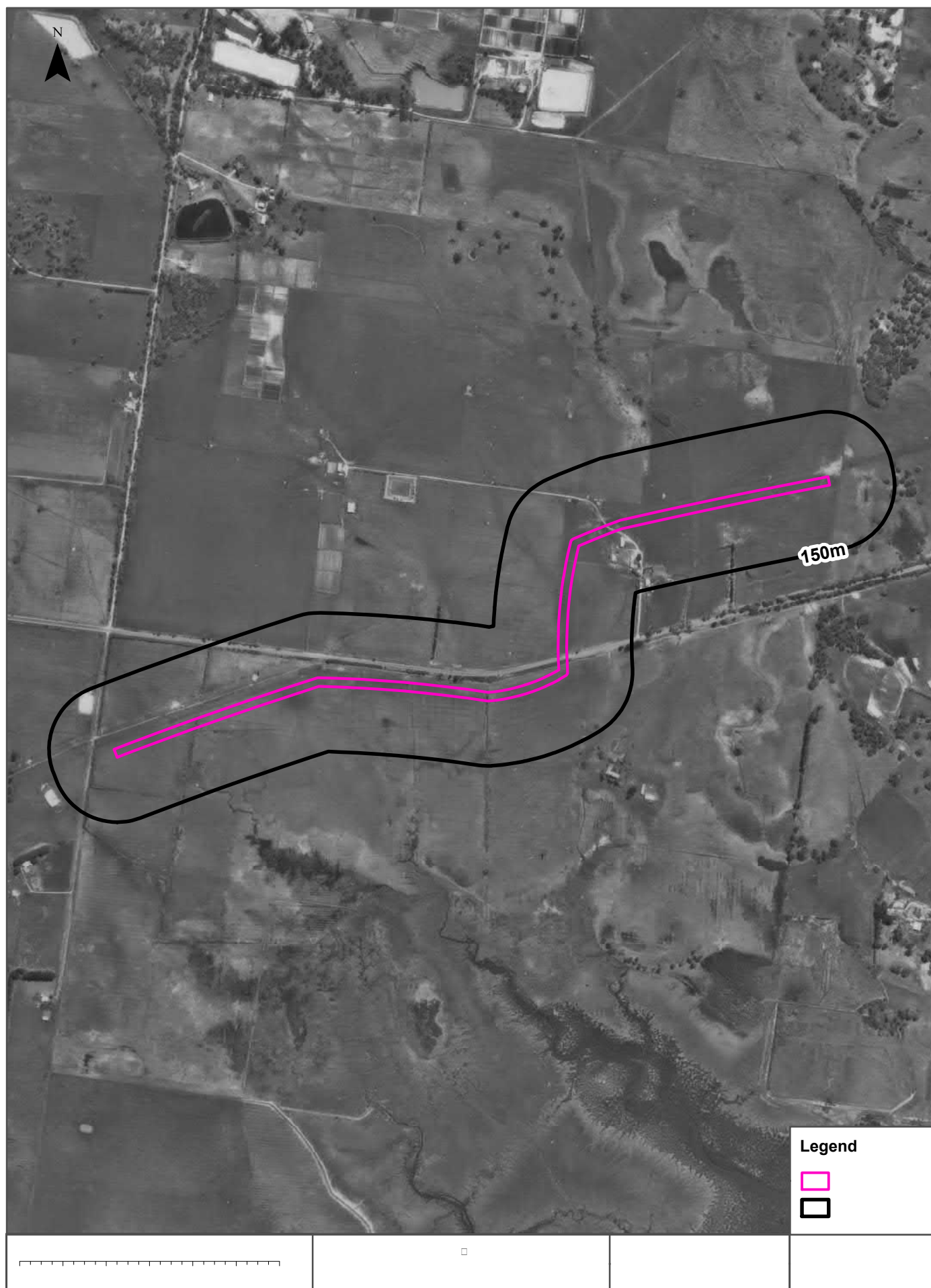
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





## Aerial Imagery 1979

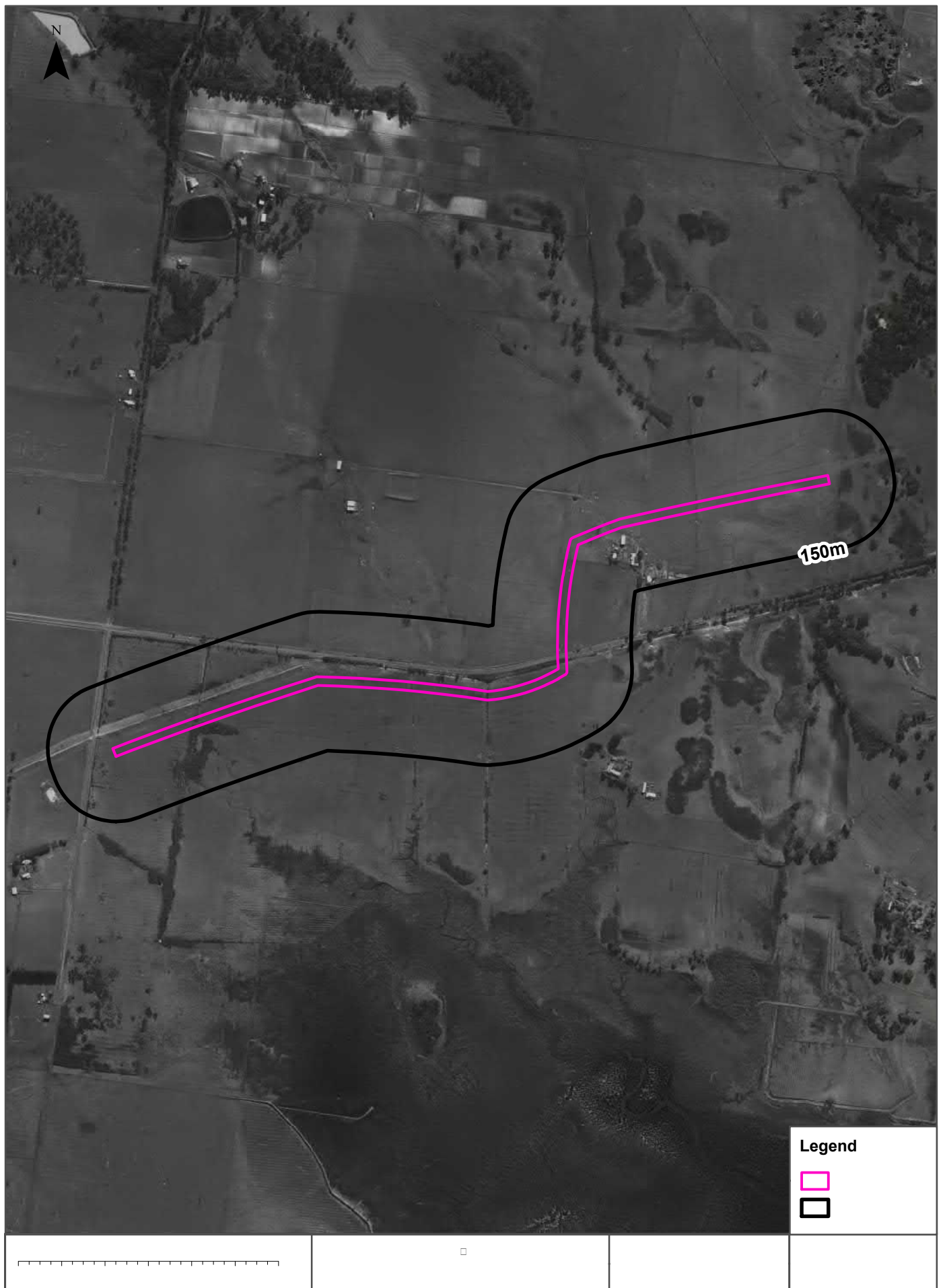
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





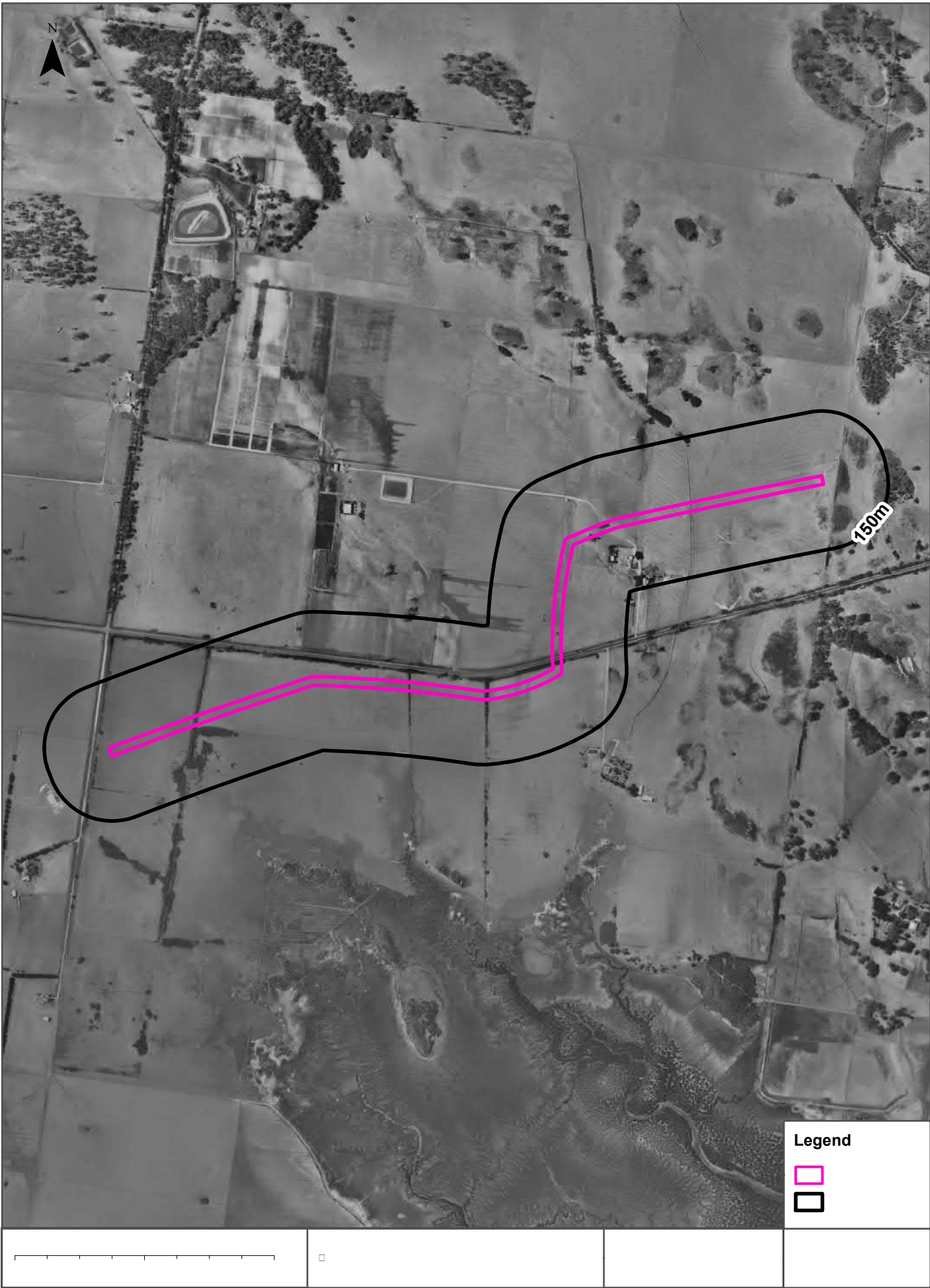
# Aerial Imagery 1974

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



Aerial Imagery 1968

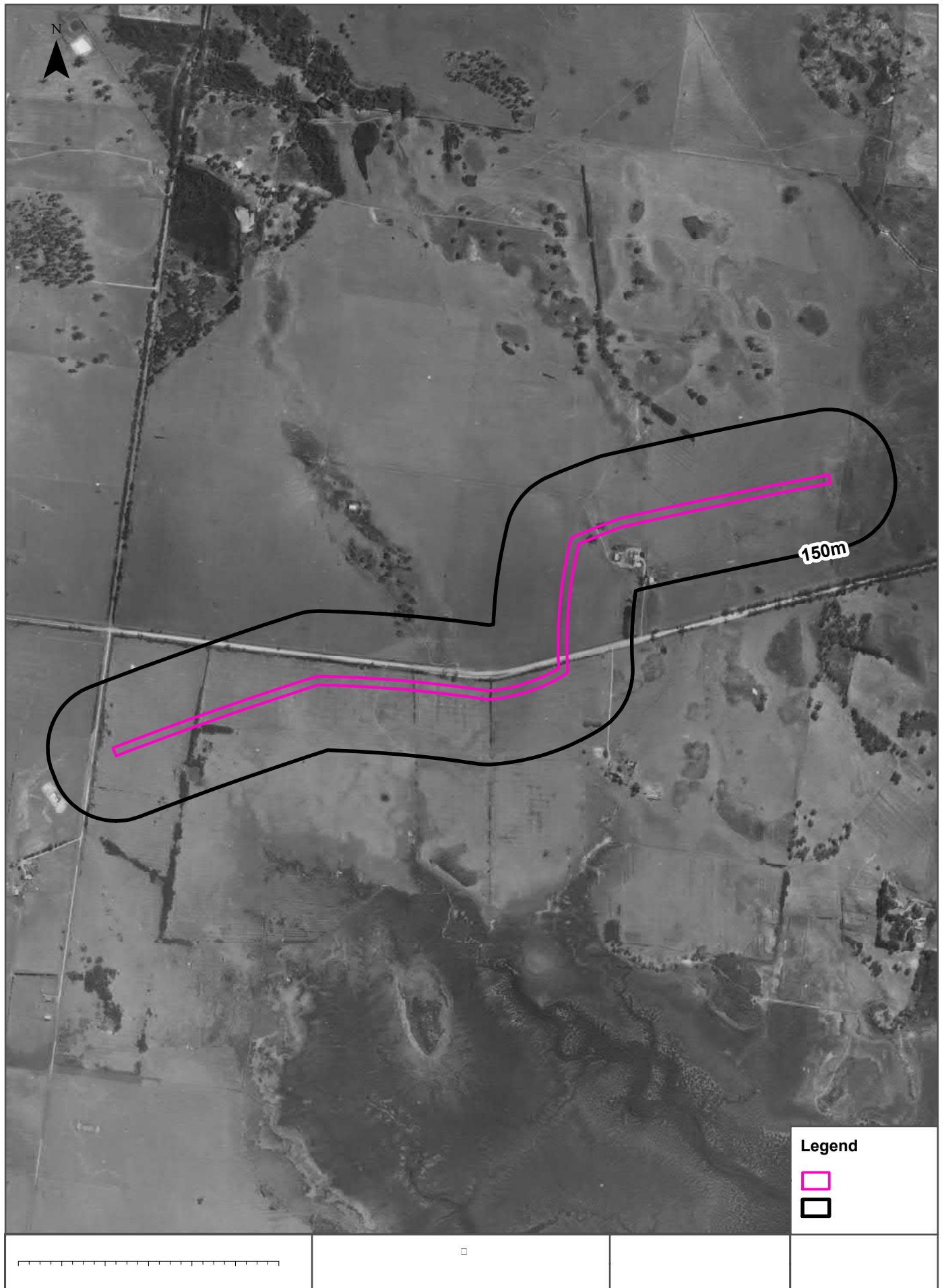
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





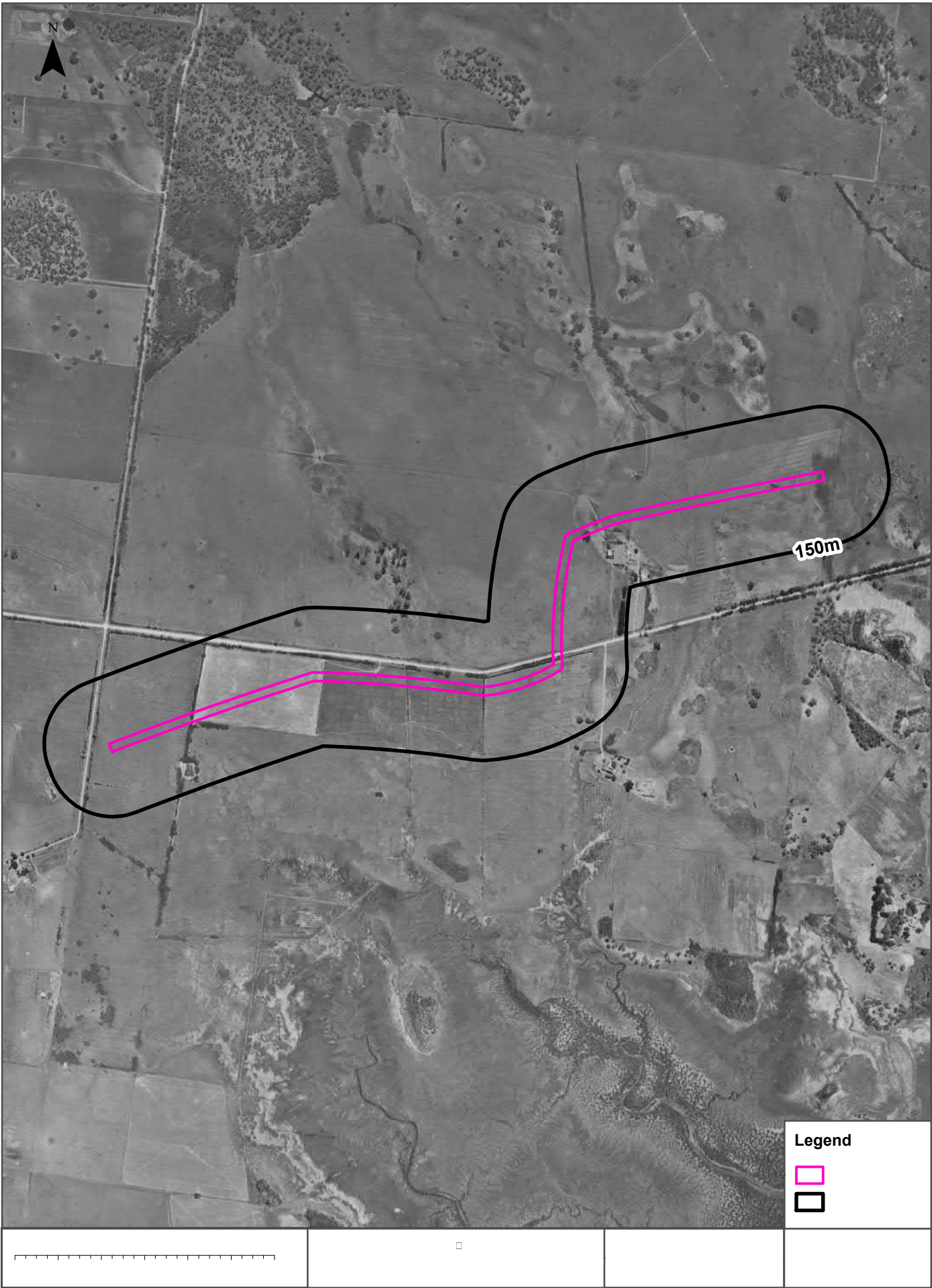
## Aerial Imagery 1962

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



Aerial Imagery 1957

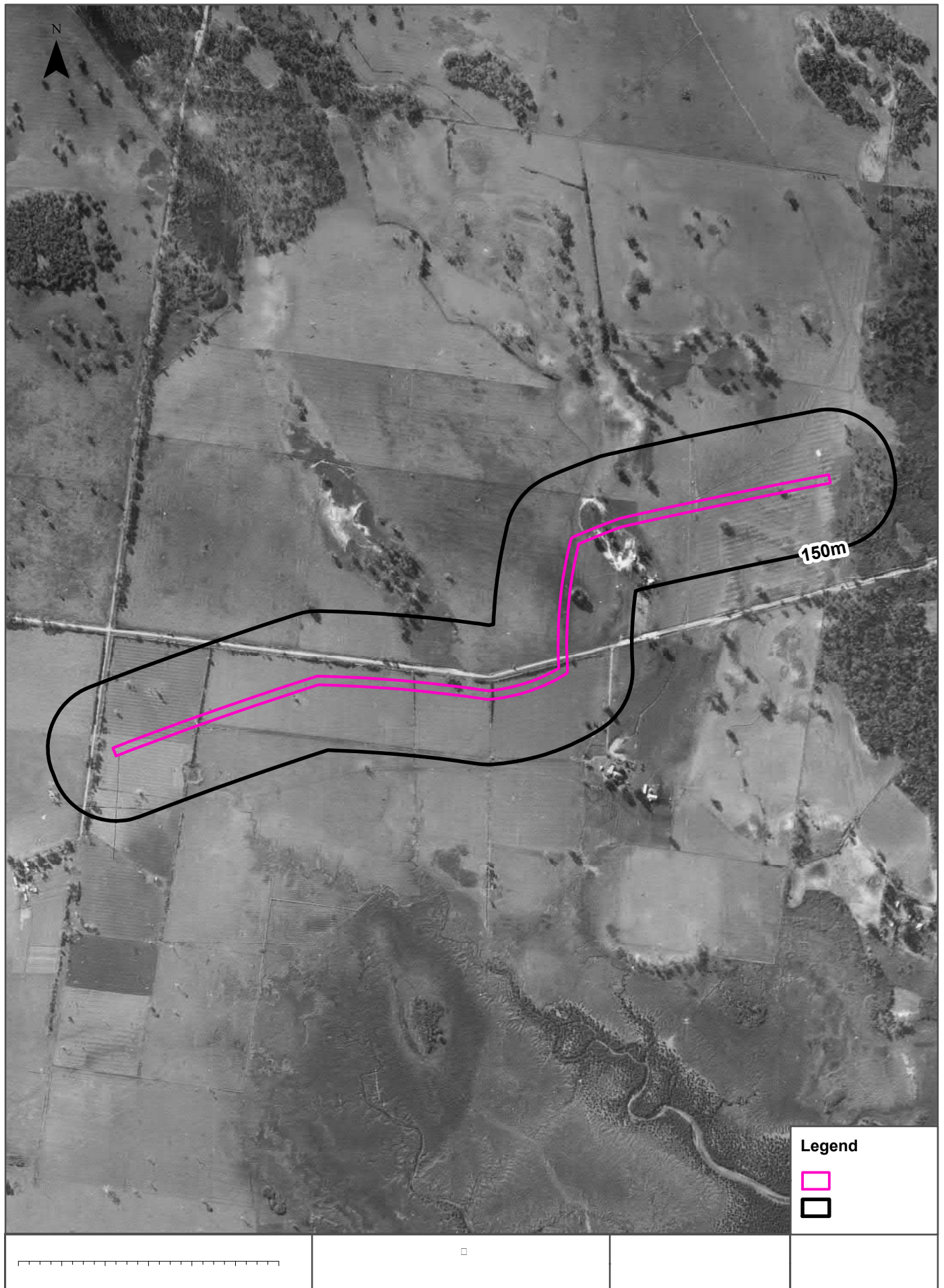
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





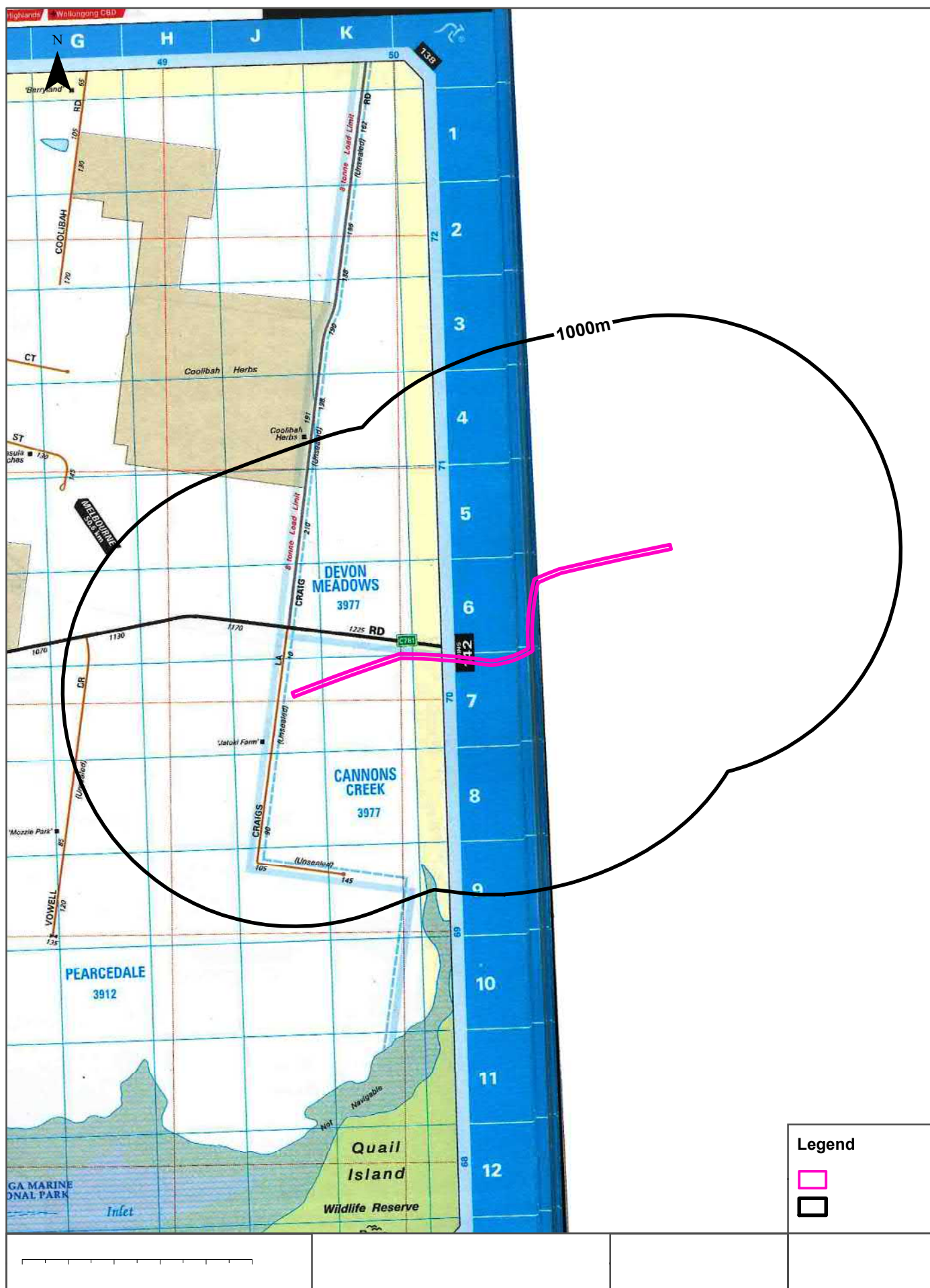
## Aerial Imagery 1939

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



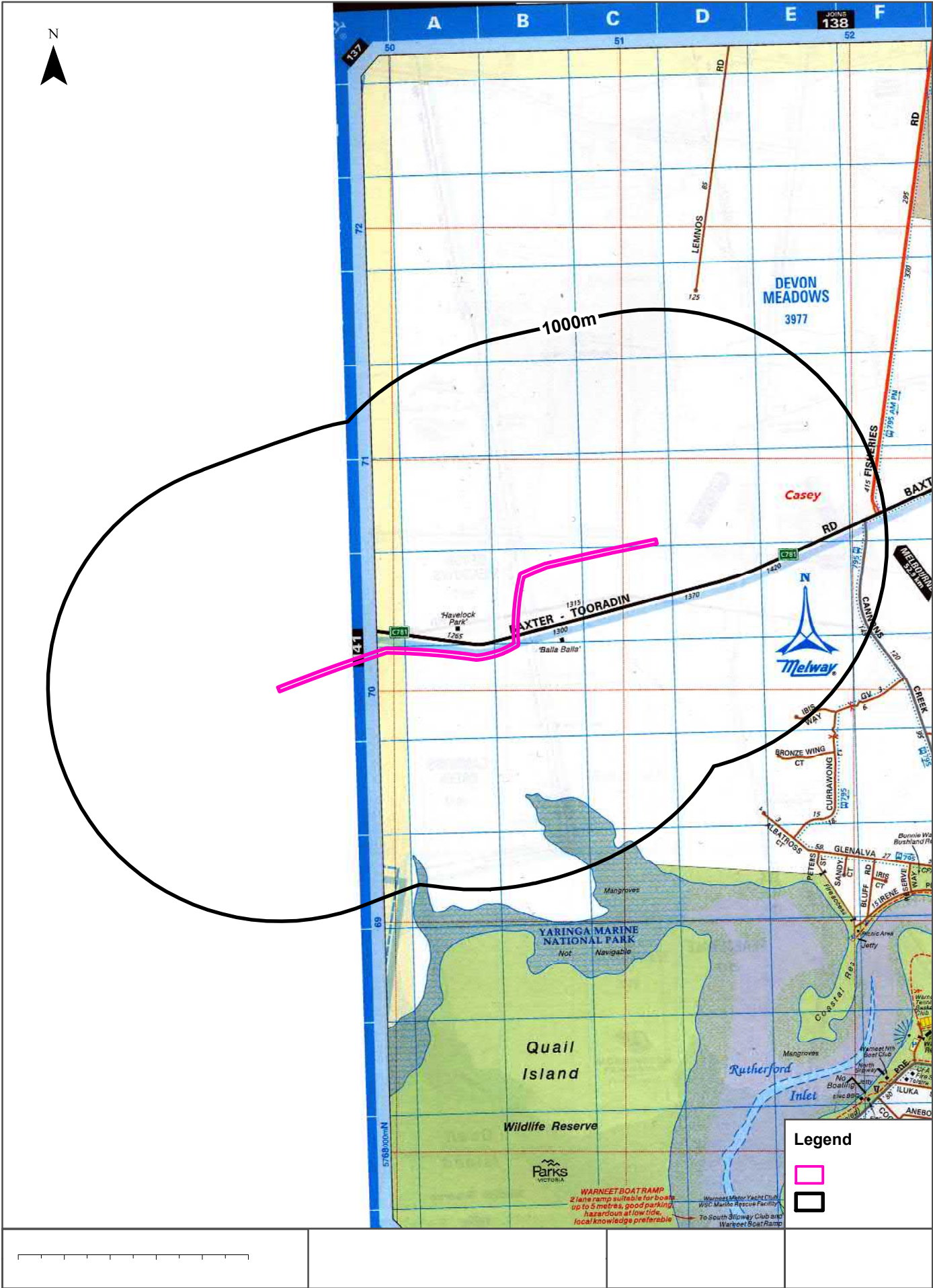


**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)**



Historical Map 2009

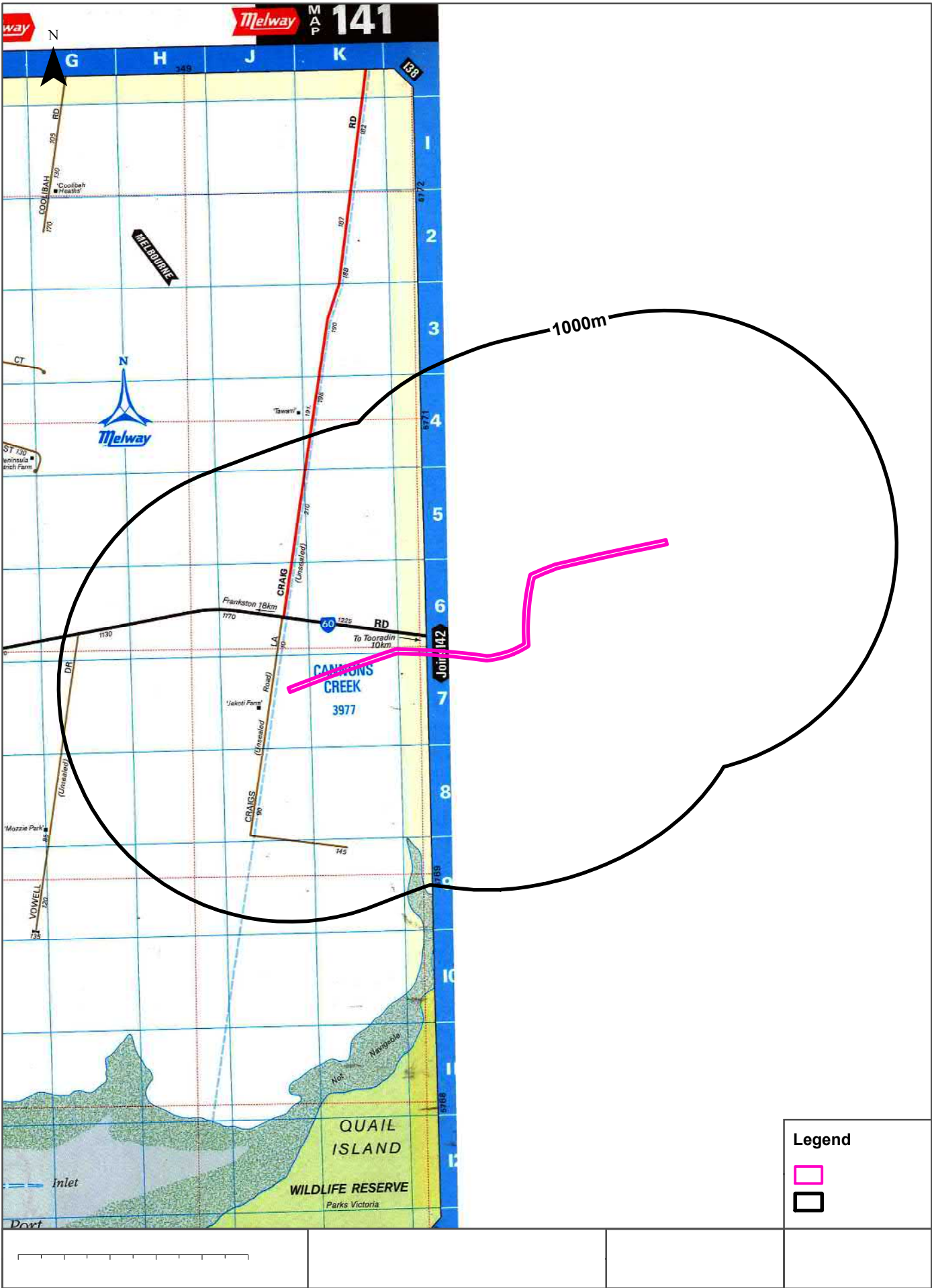
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





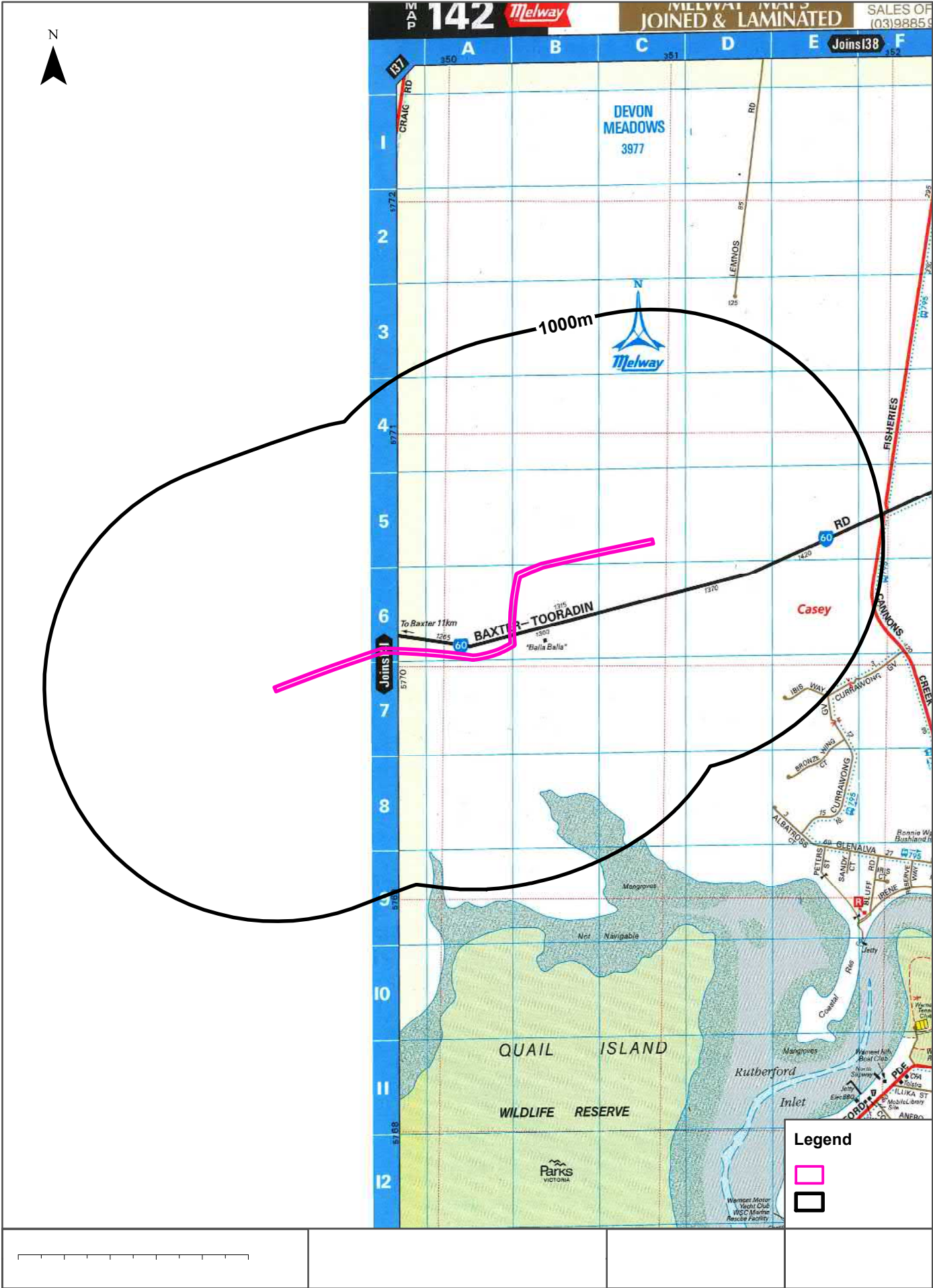
# Historical Map 1998

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

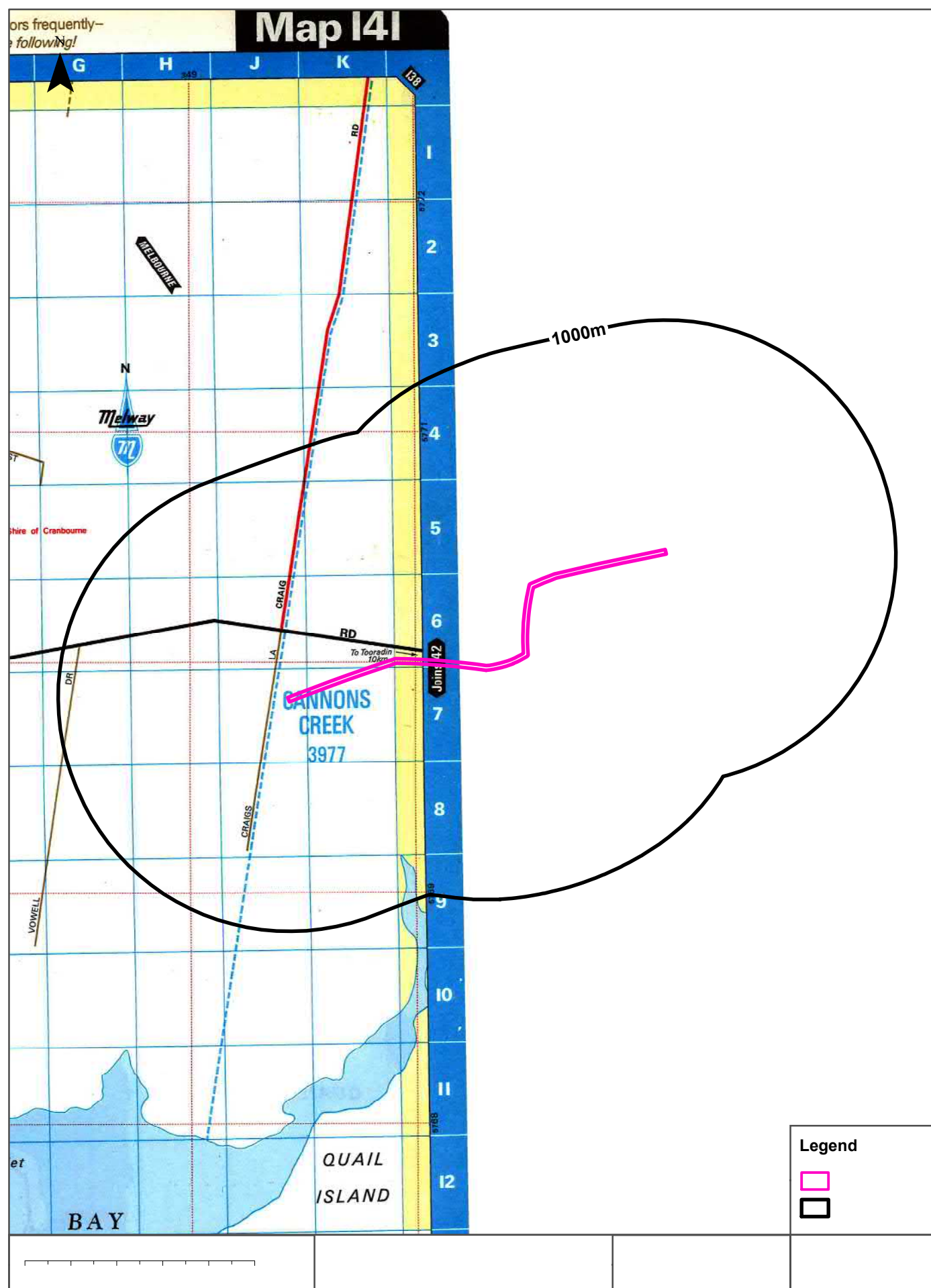


Historical Map 1998

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)**





# Historical Map 1986

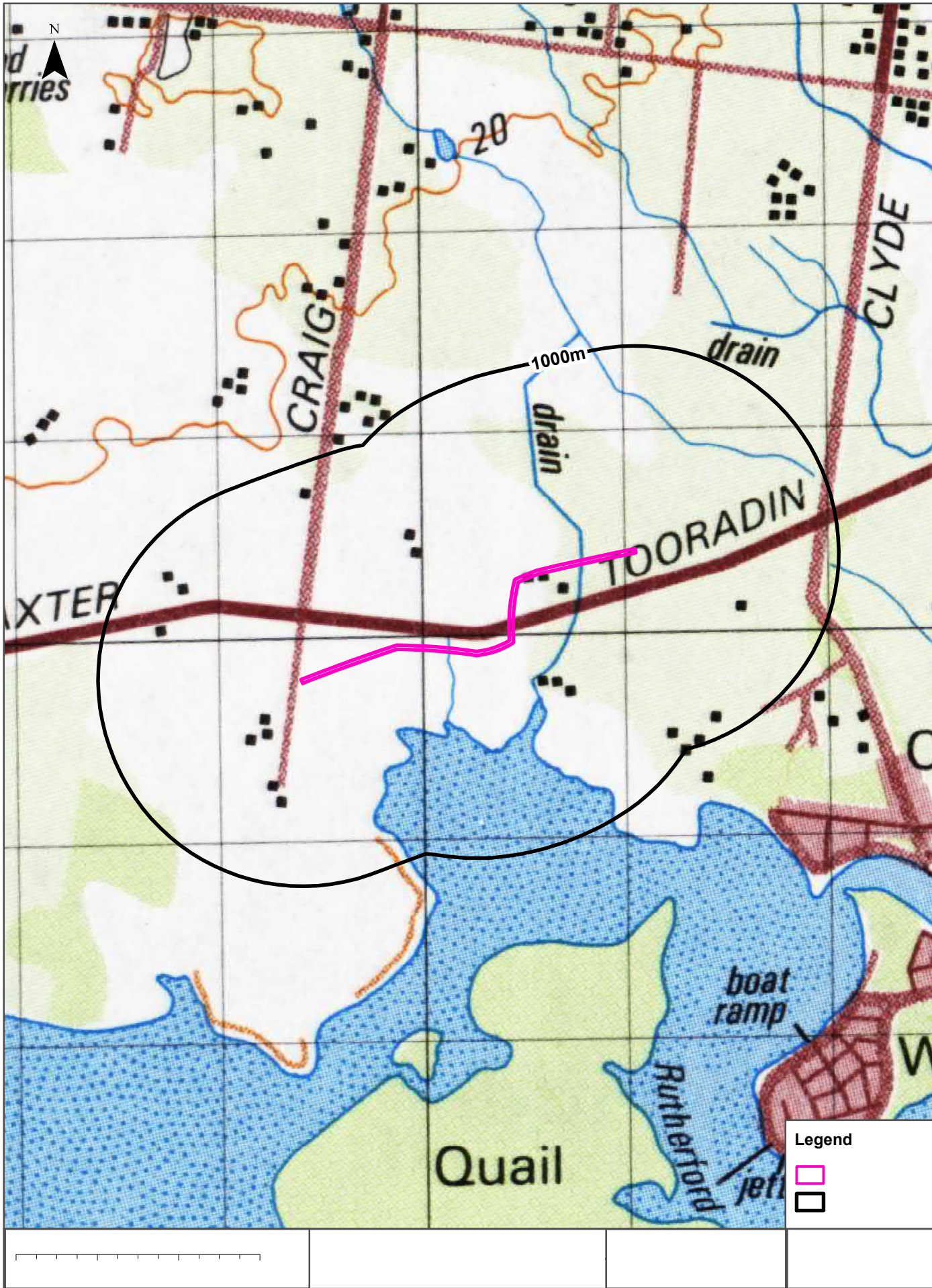
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





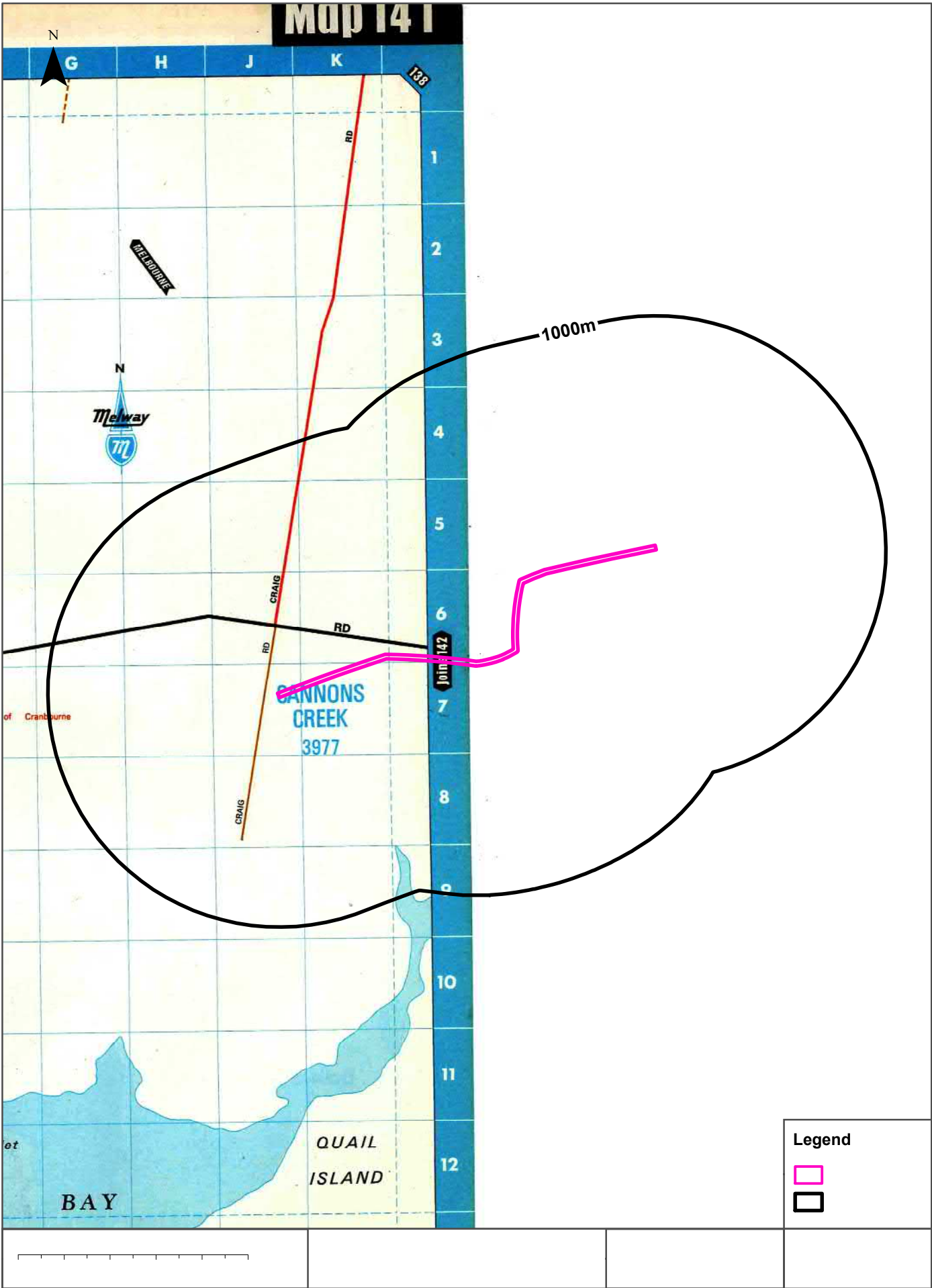
Historical Map 1979

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



Historical Map 1978

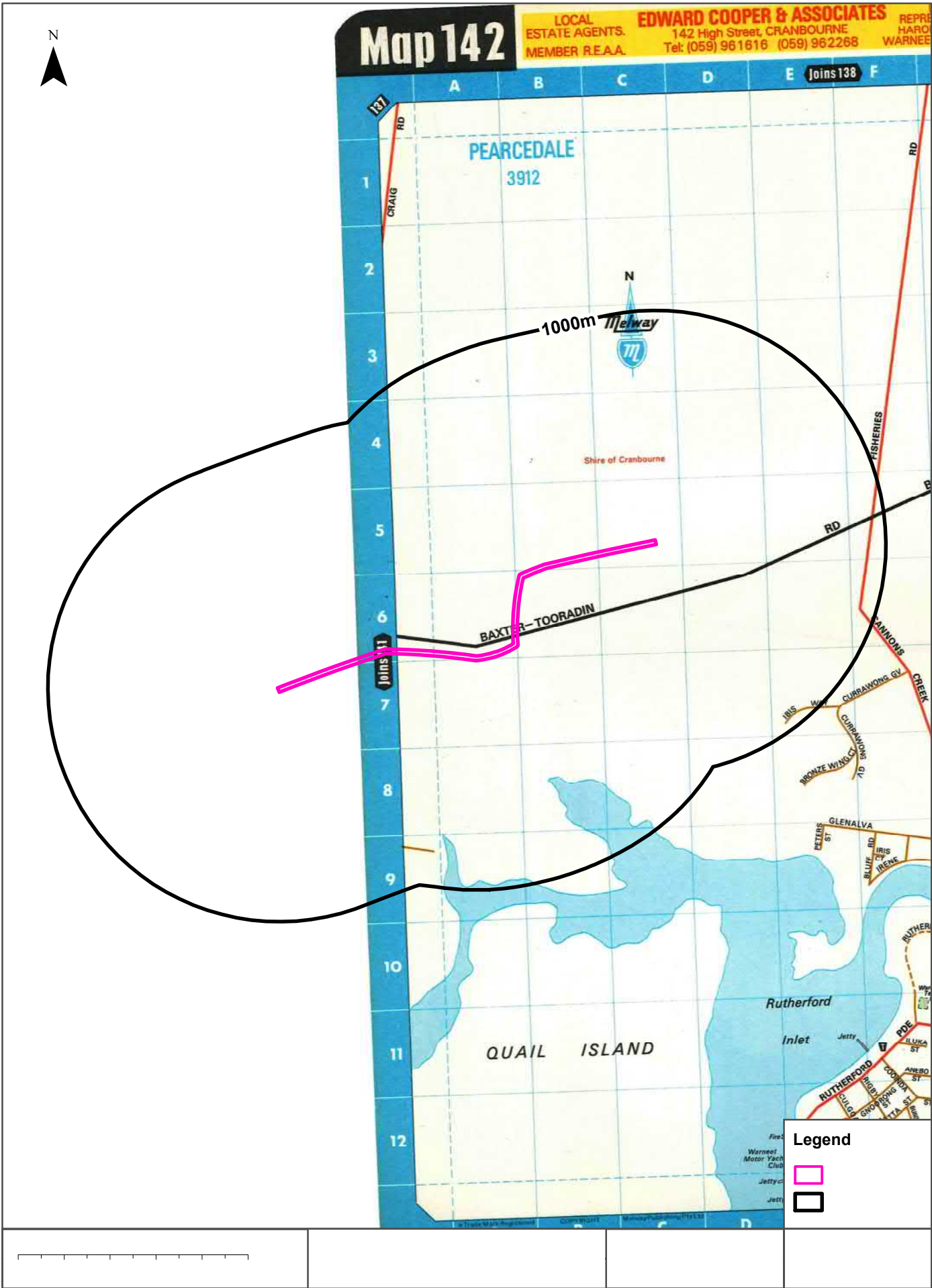
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





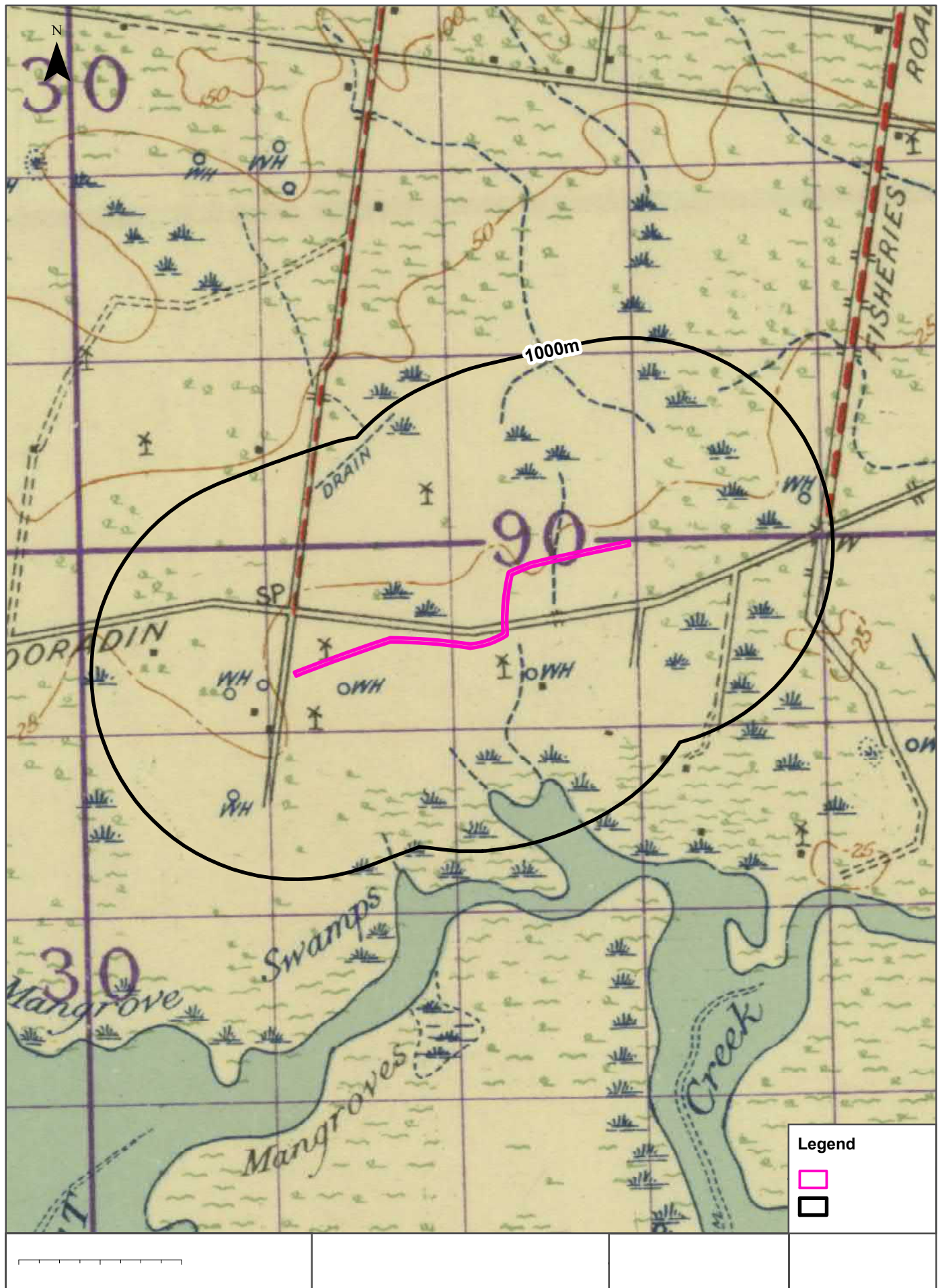
Historical Map 1978

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



# Historical Map c.1938

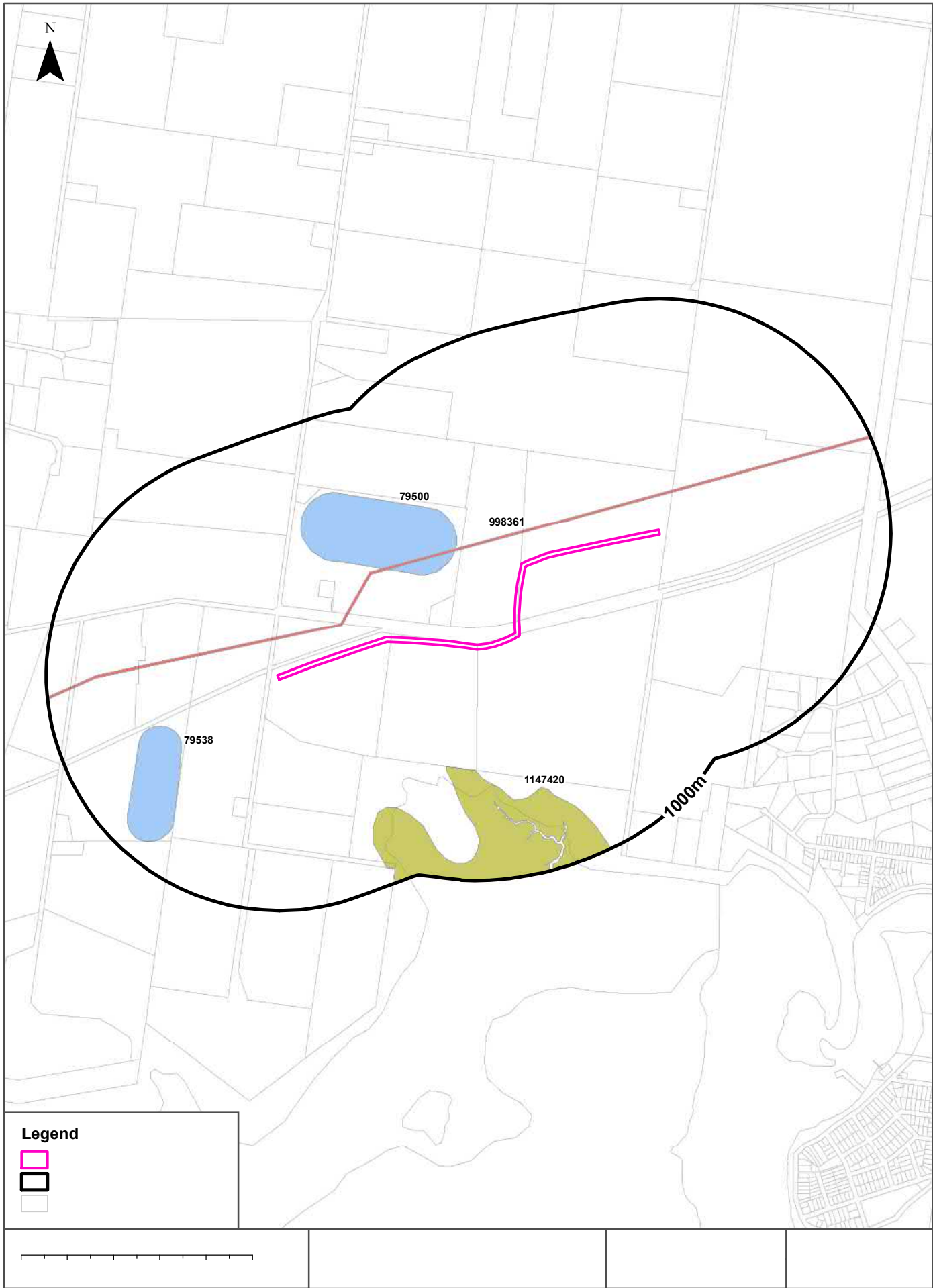
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## Features of Interest

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Features of Interest

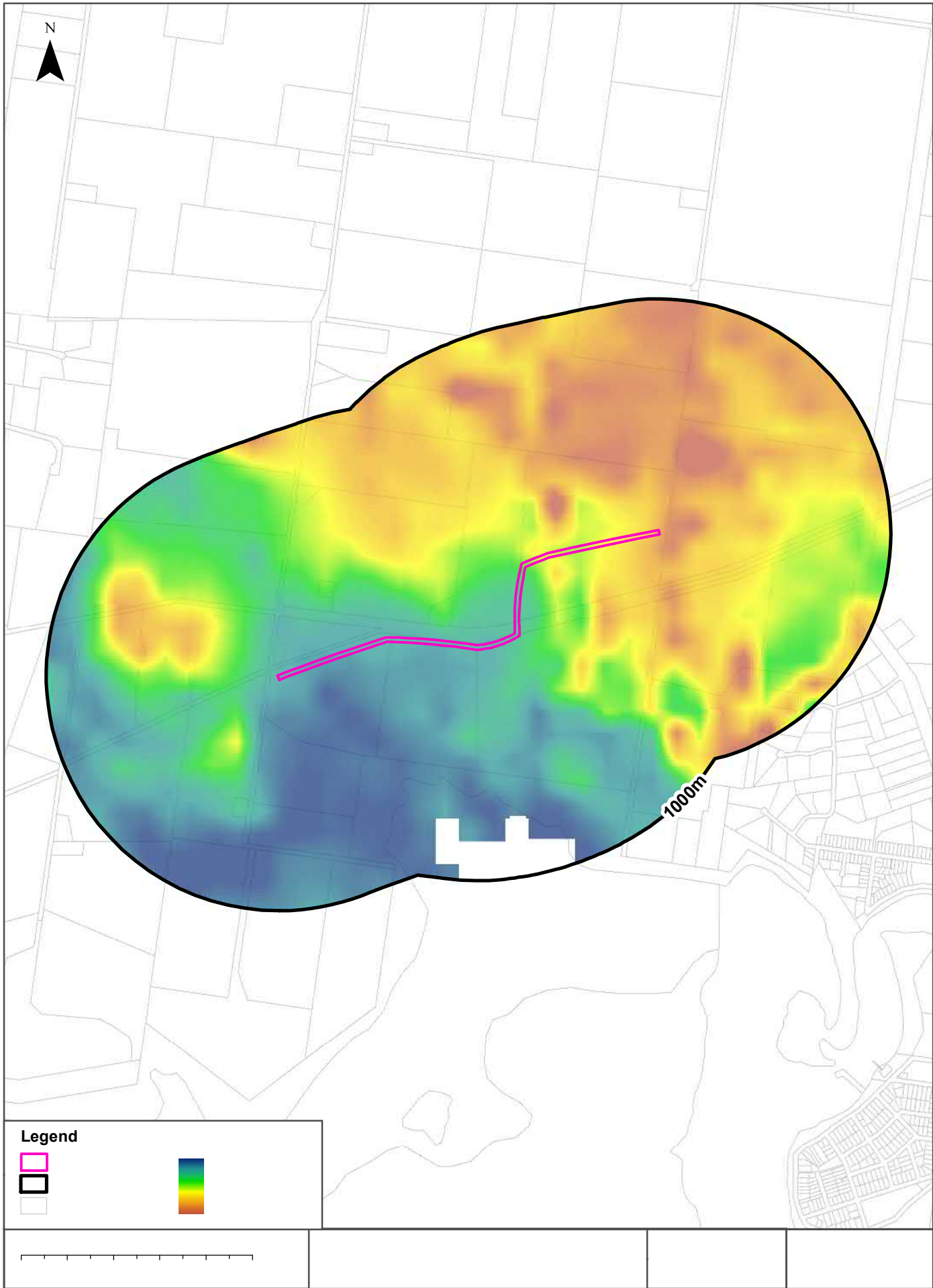
Features of Interest within the dataset buffer:

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
998361	pipeline	oil pipeline	Dutson To Hastings	110m	East
79500	sport facility	training track		277m	North West
79538	sport facility	training track		500m	South West
1147420	reserve	national park	Yaringa Marine National Park	519m	South West

Features of Interest Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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Depth to Watertable

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



# Hydrogeology & Groundwater

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	Onsite
Porous, extensive aquifers of low to moderate productivity	622m	
Fractured or fissured, extensive aquifers of low to moderate productivity	634m	

Hydrogeology Map of Australia: Commonwealth of Australia (Geoscience Australia)  
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## Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	64
3,500 - 7,000 mg/l	36

## Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
Less than 5 metres	81
5 to 10 metres	18

## Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
3 AHDm to 9 AHDm

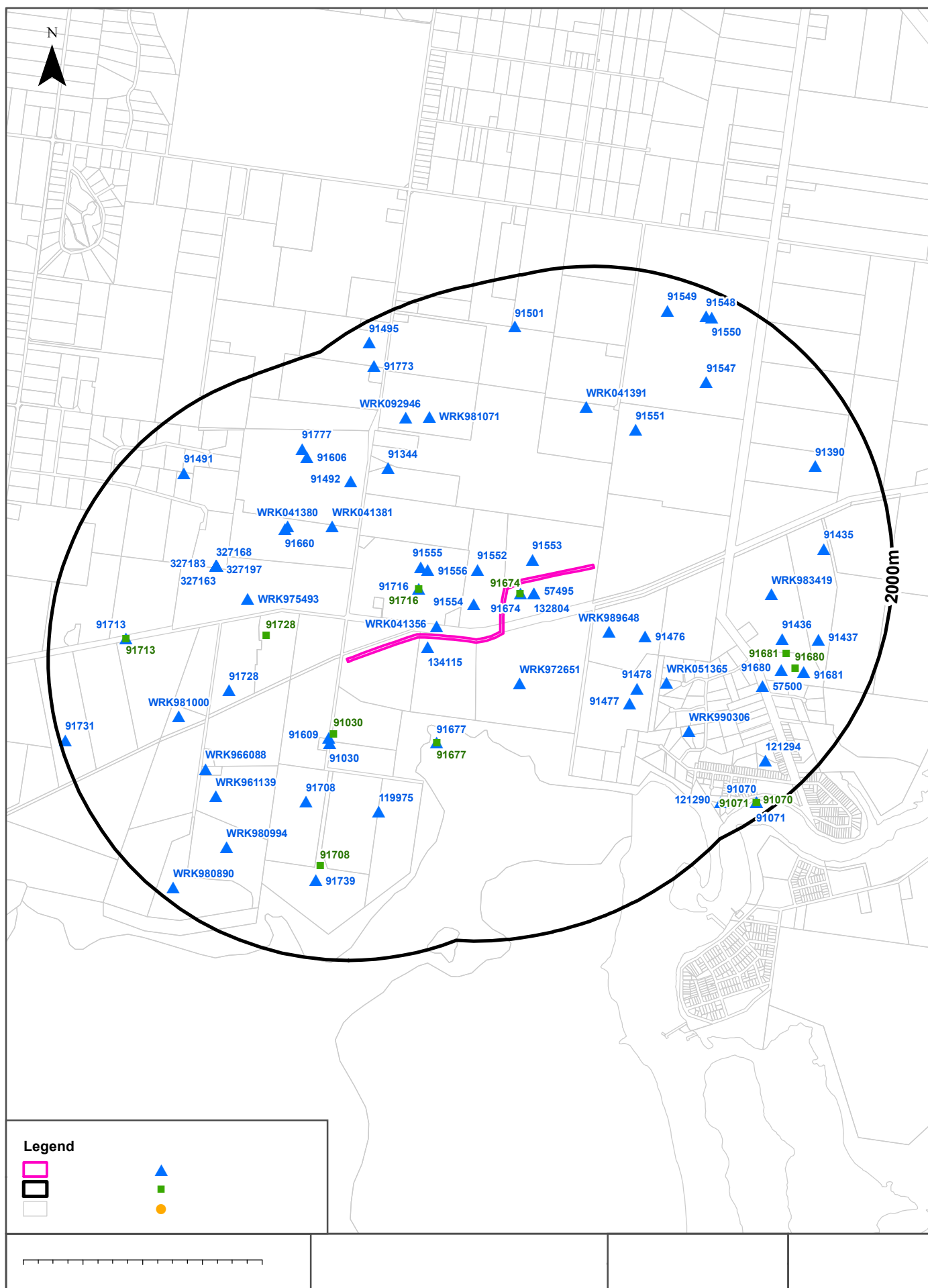
## Basement Elevation

Approximate on-site Basement Elevation:

Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
-56 AHDm to -4 AHDm

Groundwater Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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**Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)**





# Groundwater Boreholes

## Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Boreholes (DEPI WMIS)

Boreholes from the Department of Environment and Primary Industries' Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK041356	Not Known	0.00m-0.30m TOP SOIL 0.30m-6.00m CLAY 6.00m-21.00m WEATHERED BASALT 21.00m-30.00m VERY HARD BASALT 30.00m-47.00m HARD BASALT 47.00m-57.00m SANDSTONE	-0.30m-30.00m INNER LINING - CASING = Steel 30.00m-57.00m INNER LINING - SCREEN = Steel 0.00m-0.18m OUTER LINING - GRAVEL = Cement			1992-01-25	58	West
91674	Domestic, Stock	0.00m-0.60m SANDY LOAM TOPSOIL 0.60m-2.00m FINE DRY SAND 2.00m-9.00m MOTTLED CLAY 9.00m-11.00m LIGHT GREY CLAY 11.00m-14.00m RED AND WHITE CLAY 14.00m-15.25m FINE SAND	0.00m-12.50m INNER LINING - CASING = Pvc 14.00m-15.25m INNER LINING - SCREEN = Pvc		14.00m-15.25m Sand	1981-11-04	61	North East
134115	Stock	0.00m-0.30m SURFACE SOIL 0.30m-3.50m CLAY 3.50m-6.80m SANDY GREY CLAY 6.80m-8.80m MEDIUM SAND	-0.20m-6.80m INNER LINING - CASING = Pvc 6.80m-8.80m INNER LINING - SCREEN = Pvc			1998-03-28	63	South West
132804	Domestic	0.00m-0.30m TOP SOIL 0.30m-6.00m GREY CLAY 6.00m-12.00m RED & ORANGE CLAY 12.00m-14.00m LIGHT BLUE CLAY 14.00m-16.50m RED & ORANGE CLAY 16.50m-17.00m FINE SAND 17.00m-18.00m GREY CLAY				1997-04-30	85	East
57495	Domestic	0.00m-0.30m TOP SOIL 0.30m-2.00m RED YELLOW & GREY CLAY 2.00m-5.00m YELLOW & GREY CLAY 5.00m-14.00m RED YELLOW & GREY SANDY CLAY 14.00m-17.50m RED,YELLOW & GREY CLAY 17.50m-17.80m FINE TO MEDIUM SAND 17.80m-22.00m WHITE CLAY 22.00m-23.50m LIGNIOUS CLAY 23.50m-39.00m SOFT MUDSTONE 39.00m-57.00m HARD MUDSTONE 57.00m-67.00m SANDSTONE	0.00m-39.00m INNER LINING - CASING = Galvanised Iron 56.00m-67.00m INNER LINING - SCREEN = Galvanised Iron			1989-03-06	85	East
91553	Stock					1970-12-31	116	North East
91554	Stock					1970-12-31	183	North
91552	Stock					1970-12-31	215	North
91716	Domestic, Stock	0.00m-0.15m DARK LOAM SOIL 0.15m-0.91m GREY SANDY SOIL 0.91m-8.23m YELLOW CLAY 8.23m-14.63m REDDISH GREY SANDY CLAY 14.63m-17.98m SLOPPY FATTY SAND 17.98m-18.90m GREY GREEN CLAY AND PARTICLES SHELLS 18.90m-22.86m SHELLY CORAL AND BASALT 22.86m-24.38m HARDER BASALT	0.00m-18.29m INNER LINING - CASING = Galvanised Iron 18.89m-24.38m INNER LINING - SCREEN = Galvanised Iron 18.29m-0.00m OUTER LINING - GRAVEL = Seal		18.89m-24.38m Sand	1984-01-26	303	North West
WRK972651	Domestic & Stock		0.00m-61.00m INNER LINING - CASING = Pvc 11.00m-61.00m OUTER LINING - GRAVEL = Cement		0.00m-61.00m Clay 61.00m-62.60m Basalt	2006-02-22	344	South East
91556	Stock					1970-12-31	432	North West
WRK989648							437	East
91555	Stock		0.00m-39.62m INNER LINING - CASING = Galvanised Iron 39.00m-39.62m INNER LINING - SCREEN = Galvanised Iron			1964-12-31	451	North West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
91609	Stock	0.00m-0.30m SURFACE SOIL 0.30m-7.31m SANDY CLAY 7.31m-15.24m SLOPPY CLAYEY SAND 15.24m-18.29m BLACK SLOPPY CLAYEY SAND 18.29m-27.13m MARINE CLAY SILT AND SHELL 27.13m-27.74m SCORIA SHELL 27.74m-50.59m MARINE SILT CLAY AND SHELL 50.59m-51.21m HARD FINE SANDSTONE 51.21m-53.03m LAYERS ROCK CORAL SHELL 53.03m-54.80m BASALT	0.00m-50.59m INNER LINING - CASING = Not Known 51.20m-54.86m INNER LINING - SCREEN = Not Known			1973-01-15	521	South West
91030	Observation, State Observation Network		0.00m-22.25m INNER LINING - CASING = Not Known 22.25m-50.29m INNER LINING - SCREEN = Not Known	Date/time: 2016-04-27 1143 Quality: 43 WLMP: 4.26m DBNS: 3.62m RWL: 1.73mAHD		1969-10-06	556	South West
91476	Stock					1970-12-31	571	East
91677	Domestic, Stock	0.00m-0.40m TOPSOIL 0.40m-5.50m MOTTLED CLAY 5.50m-11.00m LIGHT GREY SANDY CLAY 11.00m-12.80m FINE SAND	0.00m-11.00m INNER LINING - CASING = Pvc 11.00m-12.80m INNER LINING - SCREEN = Pvc		11.00m-12.80m Sand	1982-02-08	698	South
WRK975493	Domestic & Stock	0.50m-8.00m ORANGE & GREY CLAY 8.00m-10.00m ORANGE & GREY SANDY CLAY 10.00m-15.50m DARK GREY CLAY & SAND	0.40m-12.00m INNER LINING - CASING = Pvc 12.00m-15.50m INNER LINING - SCREEN = Pvc 0.50m-4.00m OUTER LINING - GRAVEL = Cement			2006-10-17	777	West
91728	Domestic, Stock	0.00m-0.30m DARK SOIL 0.30m-0.61m GREY BRITTLE SAND 0.61m-6.70m REDDISH GREY BROWN CLAY 6.70m-13.41m FATTY SAND 13.41m-20.73m DARK MARL 20.73m-22.55m SHELLY MARL 22.55m-28.04m CONSOLIDATED SAND SHELL 28.04m-29.87m HARD CORAL 29.87m-36.58m HARD BASALT	0.00m-33.48m INNER LINING - CASING = Galvanised Iron 33.48m-36.58m INNER LINING - SCREEN = Galvanised Iron		33.48m-36.58m Basalt	1985-09-21	815	West
91478	Domestic, Stock					1970-12-31	856	South East
WRK041381	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-3.00m BROWN CLAY 3.00m-6.00m RED SILTY CLAY 6.00m-11.50m DARK GREY SOFT CLAY 11.50m-30.00m BASALT 30.00m-31.00m RUBBLE	-0.20m-14.00m INNER LINING - CASING = Pvc -0.20m-29.00m INNER LINING - CASING = Pvc 29.00m-31.00m INNER LINING - SCREEN = Pvc			1997-10-15	867	North West
WRK051365	Domestic & Stock	0.00m-13.00m fine sand 13.00m-19.00m coarse sand 19.00m-30.00m clay sands 30.00m-50.00m old seabed 50.00m-55.00m soft bluestone 55.00m-60.00m bluestone	0.00m-55.00m INNER LINING - CASING = Pvc 30.00m-45.00m OUTER LINING - GRAVEL = Cement 45.00m-55.00m OUTER LINING - GRAVEL = Bentonite		0.00m-55.00m Sand 55.00m-60.00m Basalt	2010-02-12	907	East
91477	Stock					1970-12-31	940	South East
91551	Stock					1970-12-31	950	North East
91660	Domestic, Stock	17.68m-22.86m GREY BLUEY POROUS HONEYCOMB ROCK	0.00m-17.91m INNER LINING - CASING = Galvanised Iron 17.91m-22.83m INNER LINING - SCREEN = Galvanised Iron		17.91m-22.83m Basalt	1980-03-08	966	North West
WRK041380	Irrigation	0.00m-0.30m SURFACE SOIL 0.30m-8.00m SAND 8.00m-14.00m CLAY 14.00m-14.80m BASALT 14.80m-28.00m HARD BASALT 28.00m-29.00m RUBBLE	-0.30m-14.50m INNER LINING - CASING = Steel -0.30m-24.00m INNER LINING - CASING = Not Known 24.00m-29.00m INNER LINING - SCREEN = Steel			1997-10-27	973	North West
91708	Domestic, Stock	0.00m-3.00m BROWN AND RED CLAY 3.00m-6.00m SANDY CLAY 6.00m-9.00m SAND AND COAL 9.00m-27.00m MEDIUM SAND, GREY CLAY 27.00m-50.00m SAND AND SILTY CLAY, LIMESTONE, SHELLY 50.00m-53.00m LIMESTONE	0.00m-52.43m INNER LINING - CASING = Pvc Class 9 52.43m-53.00m INNER LINING - SCREEN = Pvc Class 9		52.43m-53.00m Limestone	1983-12-19	975	South West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
119975	Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.60m SUB SOIL 0.60m-5.10m CLAY 5.10m-6.10m GREY SANDY CLAY 6.10m-6.40m FINE WHITE SAND 6.40m-13.70m BROWN COAL & LAYERS OF MEDIUM-FINE SAND 13.70m-23.10m MARINE SILT 23.10m-23.70m LIMESTONE 23.70m-31.40m CORAL 31.40m-35.00m SAND & COAL 35.00m-39.60m LIGHT GREEN SILT SHELL AND LAYERS OF LIMESTONE 39.60m-51.80m GREEN SILT & SHELLS 51.80m-58.00m BASALT	-0.20m-51.80m INNER LINING - CASING = Pvc 51.80m-58.00m INNER LINING - SCREEN = Pvc 0.00m-0.30m OUTER LINING - GRAVEL = Cement			1993-02-04	1022	South West
WRK041391	Irrigation	0.00m-38.00m SANDY CLAYS 38.00m-49.00m BASALT 49.00m-52.00m COARSE WHITE SAND	0.30m-38.00m INNER LINING - CASING = Pvc 38.00m-52.00m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement		38.00m-52.00m Sand	1998-11-01	1059	North East
327199	Non Groundwater					1964-12-31	1073	West
327172	Non Groundwater					1953-12-31	1073	West
327170	Non Groundwater					1953-12-31	1073	West
327193	Non Groundwater					1964-12-31	1073	West
327184	Non Groundwater					1964-12-31	1073	West
327174	Non Groundwater					1964-12-31	1073	West
327181	Non Groundwater					1964-12-31	1073	West
327198	Non Groundwater					1964-12-31	1073	West
327158	Non Groundwater					1952-12-31	1073	West
327178	Non Groundwater					1964-12-31	1073	West
327187	Non Groundwater					1964-12-31	1073	West
327167	Non Groundwater					1953-12-31	1073	West
327179	Non Groundwater					1964-12-31	1073	West
327173	Non Groundwater					1953-12-31	1073	West
327196	Non Groundwater					1964-12-31	1073	West
327190	Non Groundwater					1964-12-31	1073	West
327166	Non Groundwater					1953-12-31	1073	West
327195	Non Groundwater					1964-12-31	1073	West
327186	Non Groundwater					1964-12-31	1073	West
327160	Non Groundwater					1953-12-31	1073	West
327161	Non Groundwater					1953-12-31	1073	West
327175	Non Groundwater					1964-12-31	1073	West
327169	Non Groundwater					1953-12-31	1073	West
327192	Non Groundwater					1964-12-31	1073	West
327177	Non Groundwater					1964-12-31	1073	West
327180	Non Groundwater					1964-12-31	1073	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
327189	Non Groundwater					1964-12-31	1073	West
327197	Non Groundwater					1964-12-31	1073	West
327183	Non Groundwater					1964-12-31	1073	West
327157	Non Groundwater					1952-12-31	1073	West
327163	Non Groundwater					1953-12-31	1073	West
327168	Non Groundwater					1953-12-31	1073	West
327162	Non Groundwater					1953-12-31	1073	West
327188	Non Groundwater					1964-12-31	1073	West
327182	Non Groundwater					1964-12-31	1073	West
327185	Non Groundwater					1964-12-31	1073	West
327165	Non Groundwater					1953-12-31	1073	West
327171	Non Groundwater					1953-12-31	1073	West
327194	Non Groundwater					1964-12-31	1073	West
327164	Non Groundwater					1953-12-31	1073	West
327176	Non Groundwater					1964-12-31	1073	West
327191	Non Groundwater					1964-12-31	1073	West
327159	Non Groundwater					1953-12-31	1073	West
91492	Stock					1970-12-31	1110	North West
91344	Domestic					1970-01-01	1114	North West
WRK981000							1187	West
WRK966088							1193	South West
WRK983419							1202	East
WRK981071							1247	North
WRK961139							1259	South West
WRK990306							1263	South East
WRK092946	Irrigation	0.00m-0.30m Top soil 0.30m-30.00m westernport group 30.00m-45.00m BASALT	0.00m-31.50m INNER LINING - CASING = Pvc 0.00m-31.50m OUTER LINING - GRAVEL = Cement			2017-02-28	1314	North
91436	Stock					1967-12-31	1345	East
91606	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-0.91m SAND 0.91m-3.96m CLAY 3.96m-12.19m MOTTLEY CLAY 12.19m-17.07m BASAULTIC CLAY 17.07m-18.29m BASAULTIC IRONSTONE 18.29m-25.90m BASAULT	0.00m-25.90m INNER LINING - CASING = Not Known 18.28m-25.90m INNER LINING - SCREEN = Not Known			1973-11-26	1359	North West
57500	Domestic	0.00m-0.50m BLACK SANDY TOPSOIL 0.50m-1.00m FINE WHITE SAND 1.00m-7.50m YELLOW AND GREY CLAY 7.50m-10.00m WHITE CLAY 10.00m-14.00m FINE WHITE SAND	0.00m-14.00m INNER LINING - CASING = Pvc 10.00m-14.00m INNER LINING - SCREEN = Pvc			1990-04-10	1377	East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
91777	Domestic, Stock	0.00m-0.30m SURFACE SOIL 0.30m-2.70m SAND 2.70m-7.30m CLAY 7.30m-13.20m BASALTIC CLAY 13.20m-25.90m BASALT 25.90m-34.10m BROWN COAL & MEDIUM SAND 34.10m-38.00m MUDSTINE 38.00m-42.00m SANDSTONE & MUDSTONE 42.00m-56.00m SANDSTONE	38.00m-56.00m INNER LINING - CASING = Pvc 50.00m-56.00m INNER LINING - SCREEN = Pvc		50.00m-56.00m Shale	1990-04-05	1424	North West
91680	Domestic, Stock	0.00m-0.25m TOPSOIL 0.25m-3.00m FINE YELLOW CLAY 3.00m-5.50m FINE GRYE CLAY 5.50m-7.00m SANDY YELLOW CLAY 7.00m-10.00m GREY CLAY 10.00m-11.00m FINE DRIFTY GREY SAND 11.00m-13.50m FINE BROWN SAND 13.50m-21.00m FINE DRIFTY BLACK SAND 21.00m-22.50m MEDIUM DIRTY BROWN SAND 22.50m-27.00m MEDIUM FINE SHELLY SAND 27.00m-55.00m FINE SHELLY SAND	0.00m-6.30m INNER LINING - CASING = Pvc 6.30m-9.30m INNER LINING - SCREEN = Pvc		6.30m-9.30m Clay	1981-12-02	1429	East
91547	Stock					1970-12-31	1439	North East
91739	Domestic, Stock	0.00m-0.20m TOPSOIL 0.20m-1.00m SANDY LOAM 1.00m-3.00m RED AND ORANGE SANDY CLAY 3.00m-12.00m YELLOW AND GREY SANDY CLAY 12.00m-14.00m FINE SAND 14.00m-17.50m LIGNIOUS CLAY 17.50m-29.00m GREEN SILTY CLAY 29.00m-51.65m GREEN SILTY CLAY AND SHELLS 51.65m-64.00m BASALT	0.00m-51.65m INNER LINING - CASING = Galvanised Iron 51.65m-64.00m INNER LINING - SCREEN = Galvanised Iron		51.65m-64.00m Basalt	1986-02-24	1477	South West
WRK980994							1482	South West
91713	Not Known	0.00m-0.55m TOPSOIL 0.55m-3.00m MOTTLED CLAY 3.00m-5.30m GREY SANDY CLAY 5.30m-6.00m SAND 6.00m-19.00m GREY SANDY CLAY 19.00m-0.00m MUDSTONE				1983-02-02	1485	West
91435	Stock					1970-12-31	1545	East
91681	Not Known	0.00m-0.25m TOPSOIL 0.25m-3.00m YELLOW AND GREY CLAY 3.00m-5.50m FINE GREY CLAY 5.50m-7.00m SANDY YELLOW CLAY 7.00m-9.00m GREY CLAY 9.00m-9.30m FINE WHITE SAND	0.00m-6.30m INNER LINING - CASING = Pvc 6.30m-9.30m INNER LINING - SCREEN = Pvc		6.30m-9.30m Clay	1981-12-03	1567	East
91437	Stock					1970-12-31	1577	East
91390	Stock					1963-12-31	1625	North East
91491	Domestic, Stock					1970-12-31	1656	North West
91501	Stock		0.00m-19.51m INNER LINING - CASING = Galvanised Iron 19.00m-19.51m INNER LINING - SCREEN = Galvanised Iron			1938-12-31	1668	North
91773	Domestic, Stock	0.00m-0.50m TOPSOIL 0.50m-2.00m WHITE SAND 2.00m-17.00m SANDY ORANGE YELLOW CLAY 17.00m-21.50m HONEYCOMB BASALT WITH SOME CLAY 21.50m-22.50m GREY CLAY 22.50m-23.00m COAL AND WOOD				1990-03-06	1719	North
121294	Groundwater Investigation	0.00m-1.10m SANDY CLAY DARK GREY 1.10m-9.00m SANDY CLAY MED SAND BROWN 9.00m-10.00m SAND FINE GREY	-0.50m-7.00m INNER LINING - CASING = Pvc 0.00m-7.00m INNER LINING - SCREEN = Not Known 7.00m-9.00m INNER LINING - SCREEN = Not Known 9.00m-10.00m INNER LINING - SCREEN = Slotted Pvc 0.00m-0.30m OUTER LINING - GRAVEL = Cement 6.00m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-10.00m OUTER LINING - GRAVEL = Gravel			1993-10-13	1727	South East



Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
91549	Stock					1970-12-31	1774	North East
121290	Groundwater Investigation	0.00m-1.00m SAND LIGHT GREY 1.00m-4.50m SANDY CLAY 4.50m-5.50m SAND GREY 5.50m-9.50m SANDY CLAY 9.50m-10.00m CLAY RED	-0.50m-7.00m INNER LINING - CASING = Pvc 0.00m-7.00m INNER LINING - SCREEN = Not Known 7.00m-9.00m INNER LINING - SCREEN = Not Known 9.00m-10.00m INNER LINING - SCREEN = Slotted Pvc 0.00m-0.30m OUTER LINING - GRAVEL = Cement 6.00m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-10.00m OUTER LINING - GRAVEL = Gravel			1993-10-13	1785	South East
91548	Stock					1970-12-31	1830	North East
91550	Stock					1970-12-31	1837	North East
91495	Domestic, Stock		0.00m-21.34m INNER LINING - CASING = Galvanised Iron 30.00m-30.48m INNER LINING - SCREEN = Galvanised Iron			1968-12-31	1872	North
WRK980890							1910	South West
91070	Observation, State Observation Network		0.00m-34.74m INNER LINING - CASING = Not Known 34.74m-79.24m INNER LINING - SCREEN = Not Known	Date/time: 2001-12-08 0000 Quality: 43 WLMP: 2.40m DBNS: 2.21m RWL: 1.36m AHD		1971-07-30	1910	South East
91071	Observation, State Observation Network		0.00m-10.36m INNER LINING - CASING = Not Known 10.36m-14.63m INNER LINING - SCREEN = Not Known	Date/time: 2001-12-08 0000 Quality: 43 WLMP: 2.77m DBNS: 2.19m RWL: 1.35m AHD		1971-08-18	1910	South East
91731	Not Known	0.00m-0.30m SURFACE SOIL 0.30m-0.90m SAND 0.90m-6.40m CLAY 6.40m-7.00m FINE SLOPPY SANDY CLAY 7.00m-16.40m MARINE COARSE SAND 16.40m-20.10m MARINE SAND AND CLAY 20.10m-21.30m BROKEN SANDSTONE AND MARINE CORAL 21.30m-32.30m FINE SAND AND MARINE SILT 32.30m-33.50m DARK GREEN SILT AND SHELL 33.50m-35.90m BASALT	0.00m-33.80m INNER LINING - CASING = Galvanised Iron 33.80m-35.90m INNER LINING - SCREEN = Galvanised Iron		33.80m-35.90m Basalt	1982-12-17	1960	West

Boreholes WMIS Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Groundwater Boreholes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Direct
91674		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		04/11/1981	15.26		100	59	North East
91716		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		26/01/1984	24.38		100	303	North West
91030		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		06/10/1969	50.29		100	490	South West
91728		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		21/09/1985	36.58		100	563	West
91677		Private Individual/Corporation	Domestic & Stock water supply	Percussion (cable)		08/02/1982	12.80		100	697	South
91708		Private Individual/Corporation	Domestic & Stock water supply	Rotary (diamond/drag bit)		19/12/1983	53.00		100	1374	South West
91681		Private Individual/Corporation		Percussion (cable)	Abandoned	03/12/1981	9.30		100	1407	East
91713		Private Individual/Corporation		Percussion (cable)	Abandoned	02/02/1983	19.00		100	1486	West
91680		Private Individual/Corporation	Irrigation	Percussion (cable)		02/12/1981	55.00		100	1503	East
91070		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		30/07/1971	88.39	2.13	100	1909	South East
91071		Department of Manufacturing & Industry Development	Groundwater Observation	Percussion (cable)		18/08/1971	96.93		100	1909	South East

Boreholes Earth Resources Data Source: © The State of Victoria, Department of Economic Development, Jobs, Transport and Resources 2015. Creative Commons Attribution 3.0 Australia

### Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Direct
N/A	No records within buffer						

Boreholes FedUni Data Source: © Federation University Australia

## Historical Mining Activity - Shafts

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Historical Mining Activity - Shafts

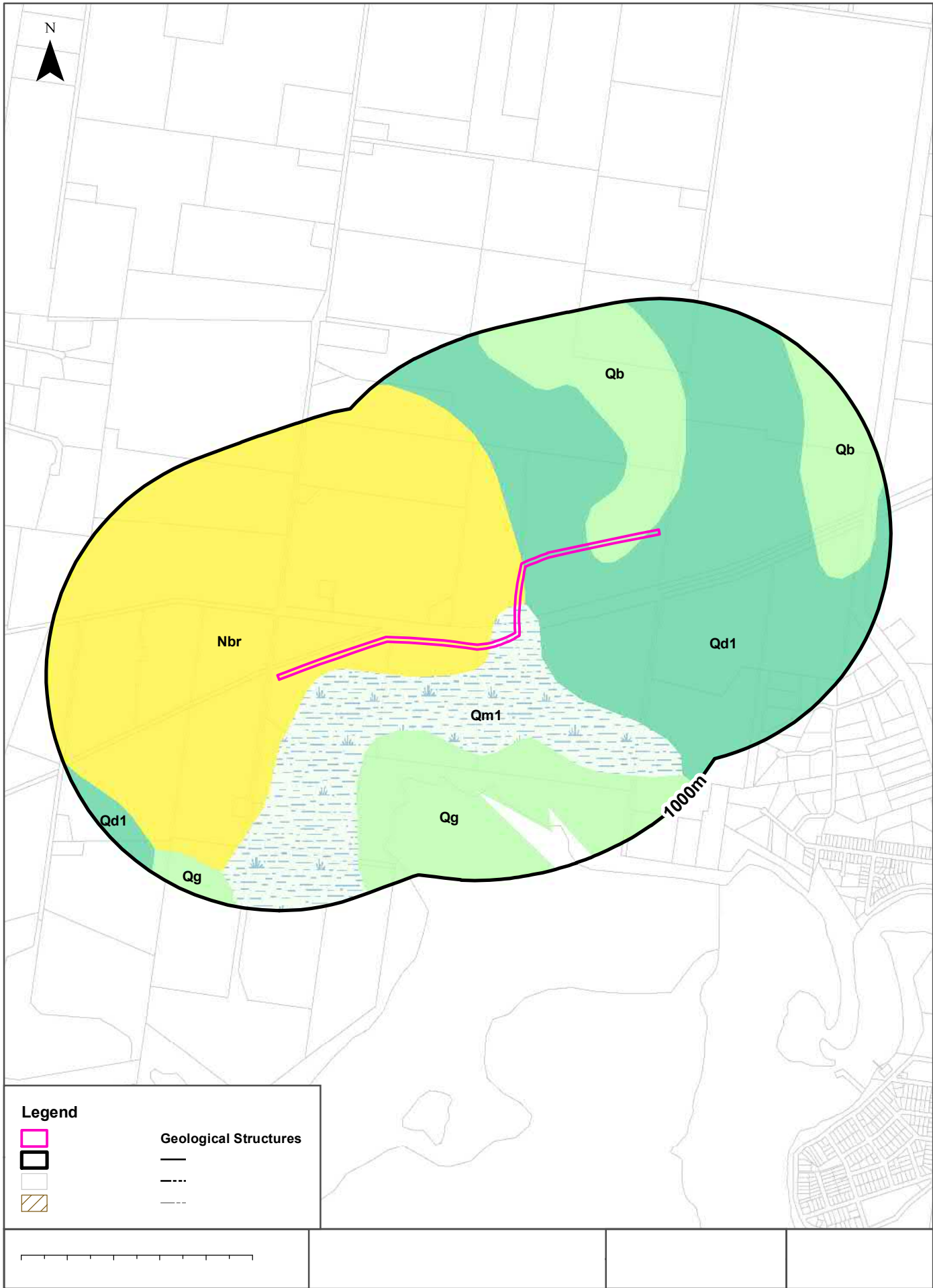
Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Historical Mining Activity Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources

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## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Geological Units

What are the Geological Units onsite?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qb	alluvium and colluvium( Qb): generic	Sand, silt, clay, gravel, diamictite; alluvial and colluvial deposits	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant); gravel material (significant)	1:250,000
Qd1	inland dune deposits (Qd1): generic	Sand, silt, clay: friable to consolidated; well sorted; includes both lunette deposits and deposits of longitudinal dunes	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qm1	swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	Pleistocene to Holocene	mud (major proportion); silt material (significant); clay lithology (significant); peat (minor proportion)	1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Dataset
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	1:250,000
Qb	alluvium and colluvium( Qb): generic	Sand, silt, clay, gravel, diamictite; alluvial and colluvial deposits	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant); gravel material (significant)	1:250,000
Qd1	inland dune deposits (Qd1): generic	Sand, silt, clay: friable to consolidated; well sorted; includes both lunette deposits and deposits of longitudinal dunes	Quaternary to Quaternary	sand (significant); silt material (significant); clay lithology (significant)	1:250,000
Qg	coastal lagoon deposits (Qg): generic	Silt, clay: dark grey to black; variably consolidated	Holocene to Holocene	silt material (significant); clay lithology (significant)	1:250,000



Symbol	Name	Description	Geological Age	Lithology	Dataset
Qm1	swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	Pleistocene to Holocene	mud (major proportion); silt material (significant); clay lithology (significant); peat (minor proportion)	1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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## Geology

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Geological Structures

What are the Geological Faults or Faulted Contacts onsite?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

What are the Dykes, Marker Beds and Veins onsite?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones onsite (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Dataset
No features					1:250,000

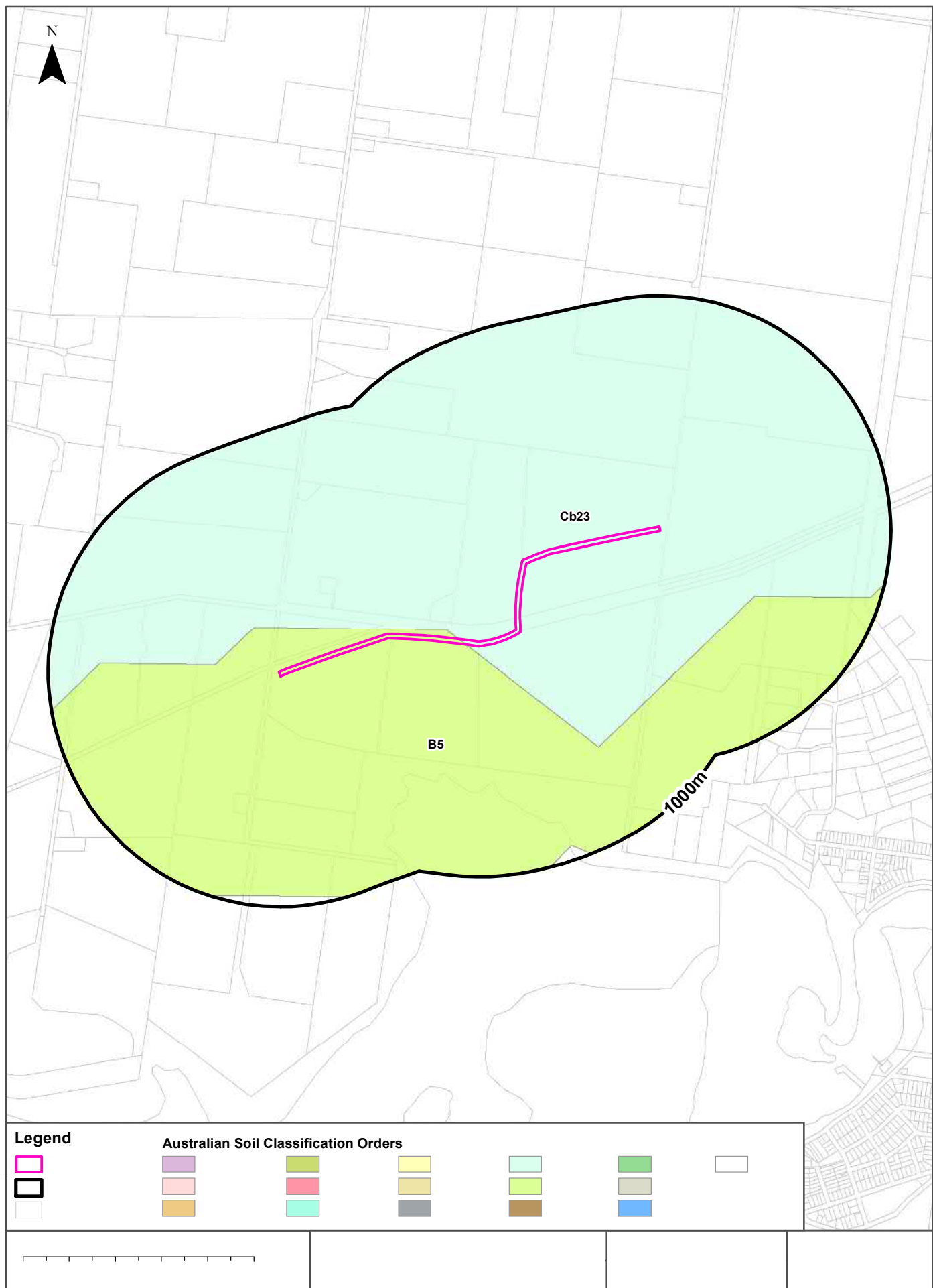
What are the Dykes, Marker Beds and Veins within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No Data Coverage					

What are the Shear Zones within the dataset buffer (1:250,000 scale)?

Map Id	Type	Name	Description	Positional Accuracy	Dataset
No features					1:250,000

Geology Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources  
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## Soil Landscapes

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Atlas of Australian Soils

Australian soil types within the dataset buffer:

Symbol	Soil Order	Map Unit Description	Distance
B5	Rudosol	Coastal plains with dunes, swamps, and lakes: plains and dunes of siliceous sands (Uc1.2) and silty soils (Um1) and plains of clay soils (Uf) and (Ug); some terrace remnants where the plains merge with the stream valleys of dark, deep, porous loamy soils (Um6.12) on the lower terraces, and hard alkaline soils (Dr2.23) on the higher terraces.	0m
Cb23	Podosol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests. and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m

Atlas of Australian Soils: CSIRO

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Victorian Soil Type Mapping

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





## Soil Landscapes

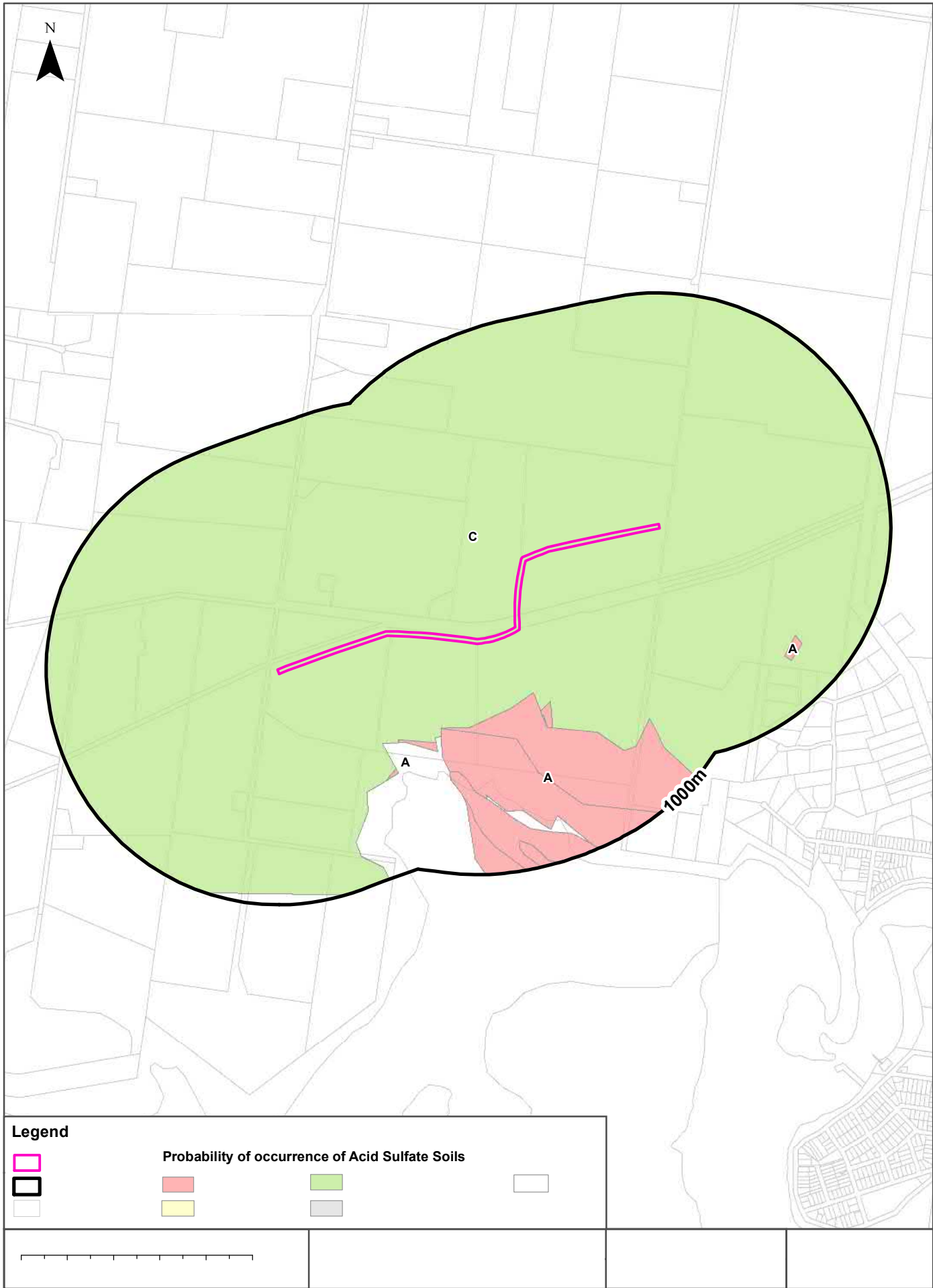
Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Victorian Soil Type Mapping

Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance
CHAB	Brown Chromosols	0m
POAL	Aeric Podosols	0m
HYED	Redoxic Hydrosols	621m

Victorian Soil Type Mapping Data Source: Department of Economic Development, Jobs, Transport and Resources  
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## Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Atlas of Australian Acid Sulfate Soils

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

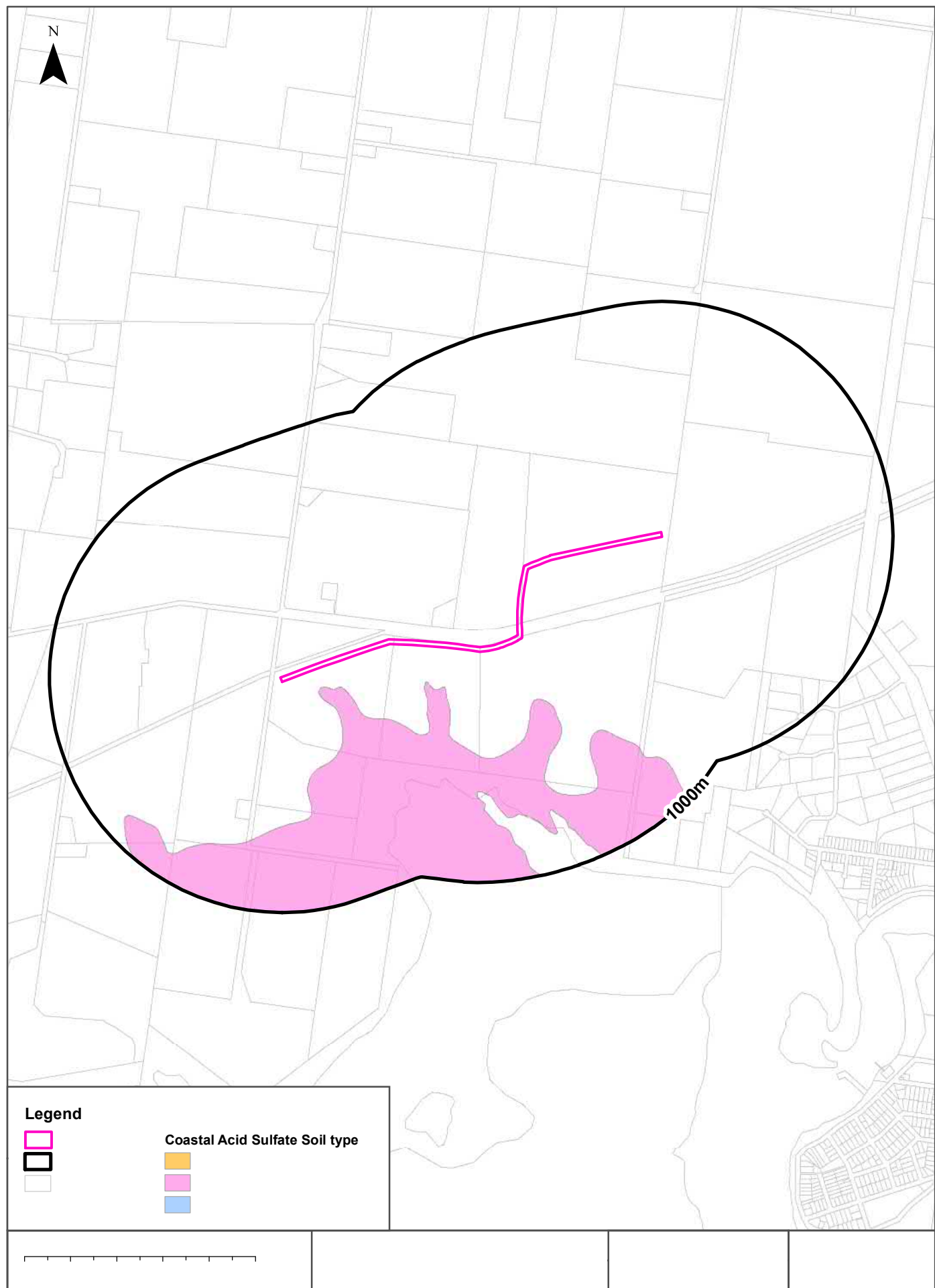
PROBCLASS	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m
A	High Probability of occurrence. >70% chance of occurrence.	268m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## Coastal Acid Sulfate Soils

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Coastal Acid Sulfate Soils

What are the on-site Coastal Acid Sulfate Soil types?

Coastal Acid Sulfate Soil Types
There are no Acid Sulfate areas onsite

What are the Coastal Acid Sulfate Soil types within the dataset buffer?

Coastal Acid Sulfate Soil Types	Distance	Direction
Prospective	82m	South

Coastal Acid Sulfate Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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# Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## Planning Zones

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Planning Zones

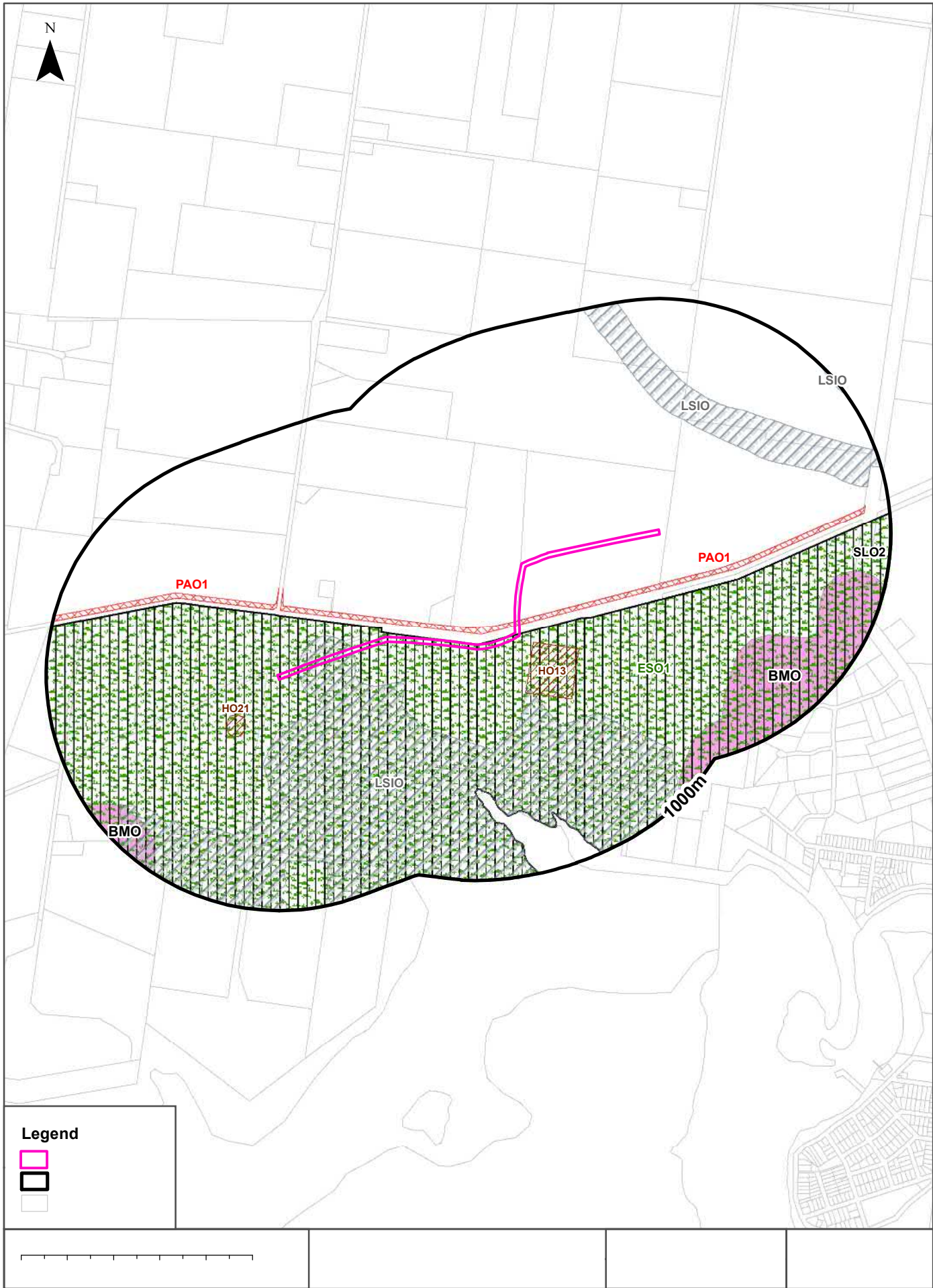
Planning zones within the dataset buffer:

Zone Code	Description	Distance	Direction
GWZ5	GREEN WEDGE ZONE - SCHEDULE 5	0m	Onsite
RCZ	RURAL CONSERVATION ZONE	0m	Onsite
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	0m	Onsite
RDZ1	ROAD ZONE - CATEGORY 1	0m	Onsite
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	48m	West
RDZ2	ROAD ZONE - CATEGORY 2	289m	North West
GWZ5	GREEN WEDGE ZONE - SCHEDULE 5	293m	North West
PCRZ	PUBLIC CONSERVATION AND RESOURCE ZONE	431m	South
GWAZ1	GREEN WEDGE A ZONE - SCHEDULE 1	756m	East
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	934m	East
GWZ5	GREEN WEDGE ZONE - SCHEDULE 5	960m	North East

Planning Zone Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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Planning Overlays

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## Planning Overlays

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Planning Overlays

Planning overlays within the dataset buffer:

Zone Code	Description	Distance	Direction
ESO1	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1	0m	Onsite
SLO2	SIGNIFICANT LANDSCAPE OVERLAY - SCHEDULE 2	0m	Onsite
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	0m	Onsite
PAO1	PUBLIC ACQUISITION OVERLAY 1	0m	Onsite
HO13	HERITAGE OVERLAY (HO13)	65m	South East
HO21	HERITAGE OVERLAY (HO21)	225m	South West
PAO1	PUBLIC ACQUISITION OVERLAY 1	274m	West
LSIO	LAND SUBJECT TO INUNDATION OVERLAY	469m	East
BMO	BUSHFIRE MANAGEMENT OVERLAY	602m	South East
BMO	BUSHFIRE MANAGEMENT OVERLAY	856m	South West

Planning Overlay Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Heritage

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Victorian Heritage Register

What are the Victorian Heritage Register items located within the dataset buffer?:

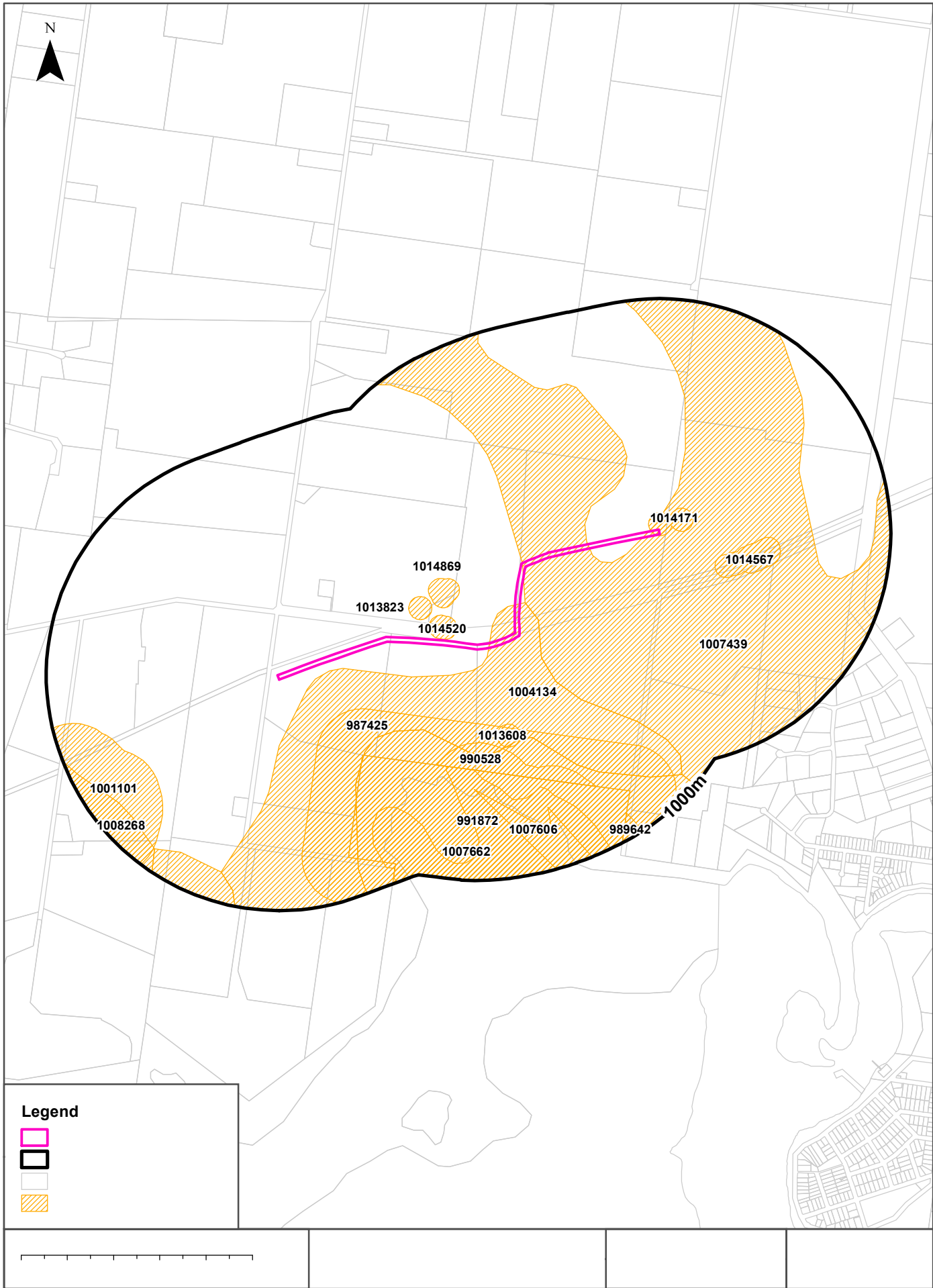
VHR Number	Description	Distance	Direction
N/A	No records within buffer		

Victorian Heritage Register Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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Cultural Heritage Sensitivity

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## Heritage

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Cultural Heritage Sensitivity

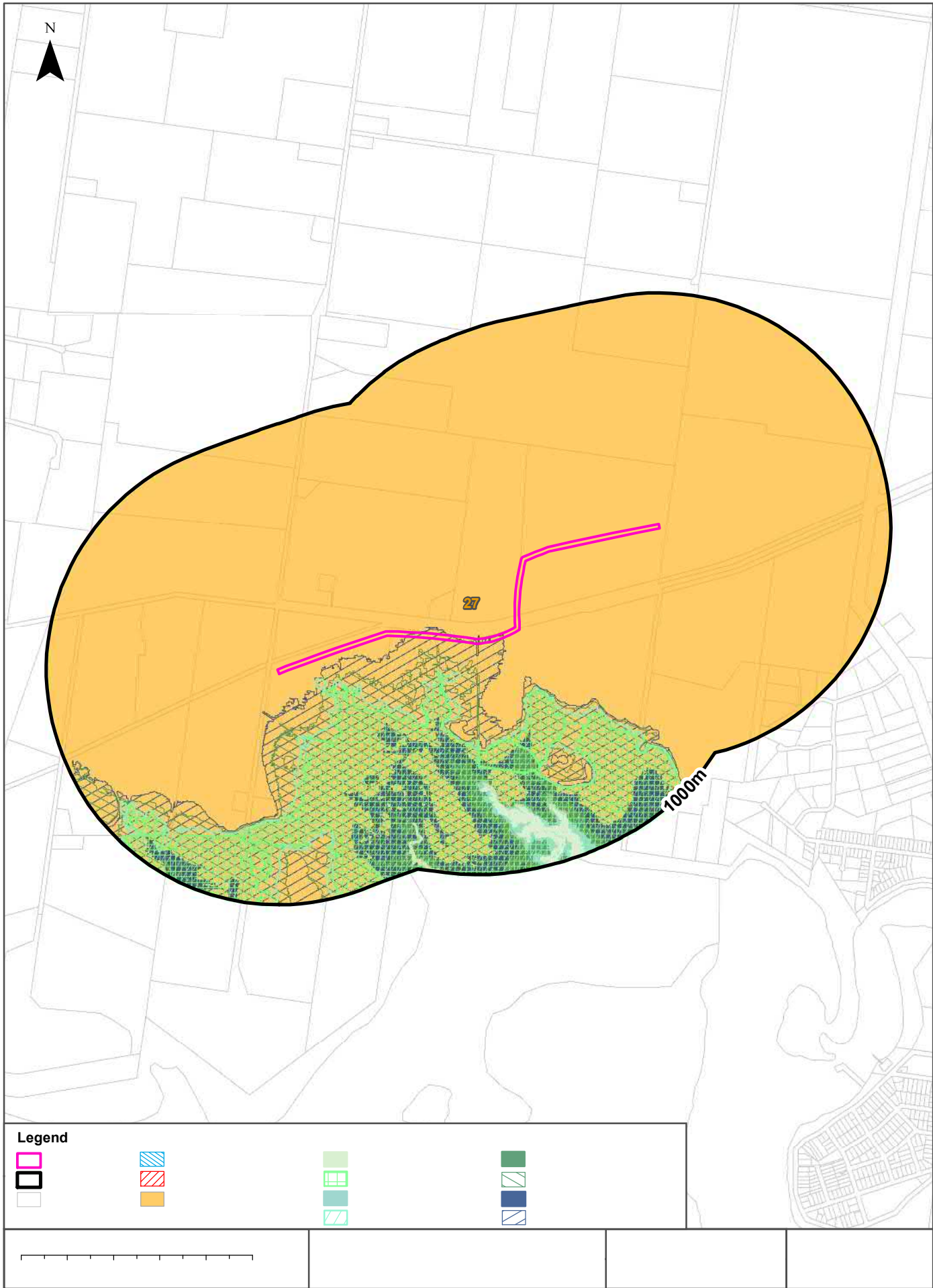
Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2007, within the dataset buffer:

Map Id	Distance	Direction
1007439	0m	Onsite
1004134	0m	Onsite
1014171	0m	Onsite
1014520	6m	South West
1013823	82m	West
1014869	141m	North West
987425	232m	South
1014567	271m	East
1013608	339m	South
1007662	373m	South
990528	404m	South
991872	431m	South
1007606	519m	South West
1001101	676m	South West
1008268	870m	West
989642	898m	East

Cultural Heritage Sensitivity Data Custodian: State Government Victoria - Dept of Planning and Community Development  
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Natural Hazards

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
27	Designated Bushfire Prone Area	LEGL./18-238	CASEY	16/05/2018	0m	Onsite

Bushfire Prone Area Data Custodian: State Government Victoria - Dept of Transport, Planning & Local Infrastructure  
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## Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
N/A	No records within buffer									

Fire History Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records within buffer					

Flood Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Natural Hazards

### Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

## Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	0m	Onsite
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	29m	South
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	76m	South West
Current (2009) inundation to 1-in-100 year storm tide level	131m	South East
Projected 82cm sea level rise by 2100	338m	South
Projected 47cm sea level rise by 2070	469m	South
Projected 20cm sea level rise by 2040	592m	South East
Current (2009) sea level	603m	South East

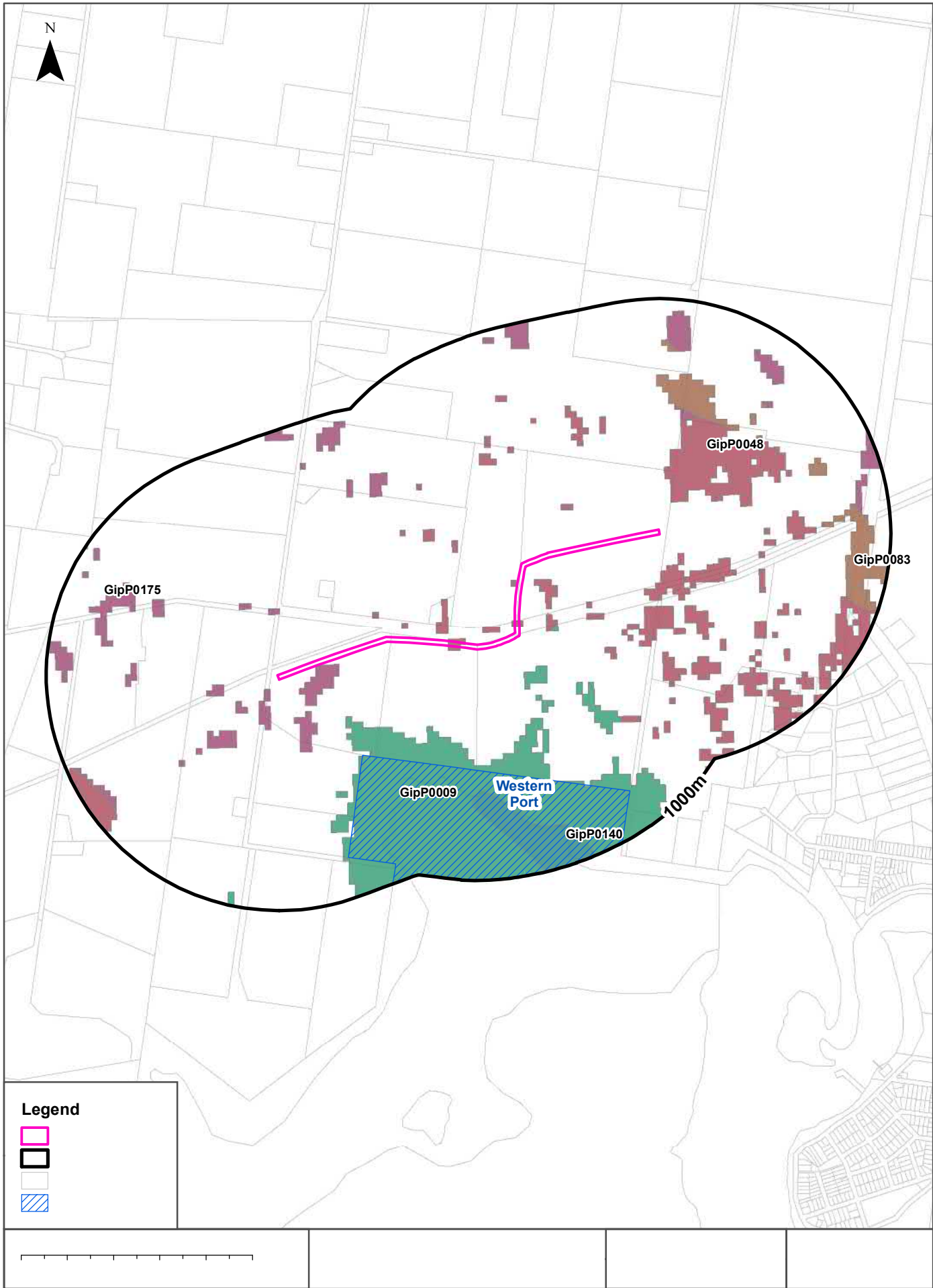
Victorian Coastal Inundation Sea Level Rise Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Ecological Constraints - Native Vegetation 2005 & RAMSAR Wetlands

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)



## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Distance
GipP0048	Heathy Woodland	0048	Heathy Woodlands	Dry and/or better drained	Gippsland Plain	Least Concern	Common	0m
GipP0175	Grassy Woodland	0175	Lower Slopes or Hills Woodlands	Grassy	Gippsland Plain	Endangered	Common	0m
GipP0009	Coastal Saltmarsh	0009	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Common	121m
GipP0083	Swampy Riparian Woodland	0083	Riparian Scrubs or Swampy Scrubs and Woodlands		Gippsland Plain	Endangered	Common	517m
GipP0140	Mangrove Shrubland	0140	Salt-tolerant and/or succulent Shrublands	Coastal	Gippsland Plain	Least Concern	Naturally Restricted	612m

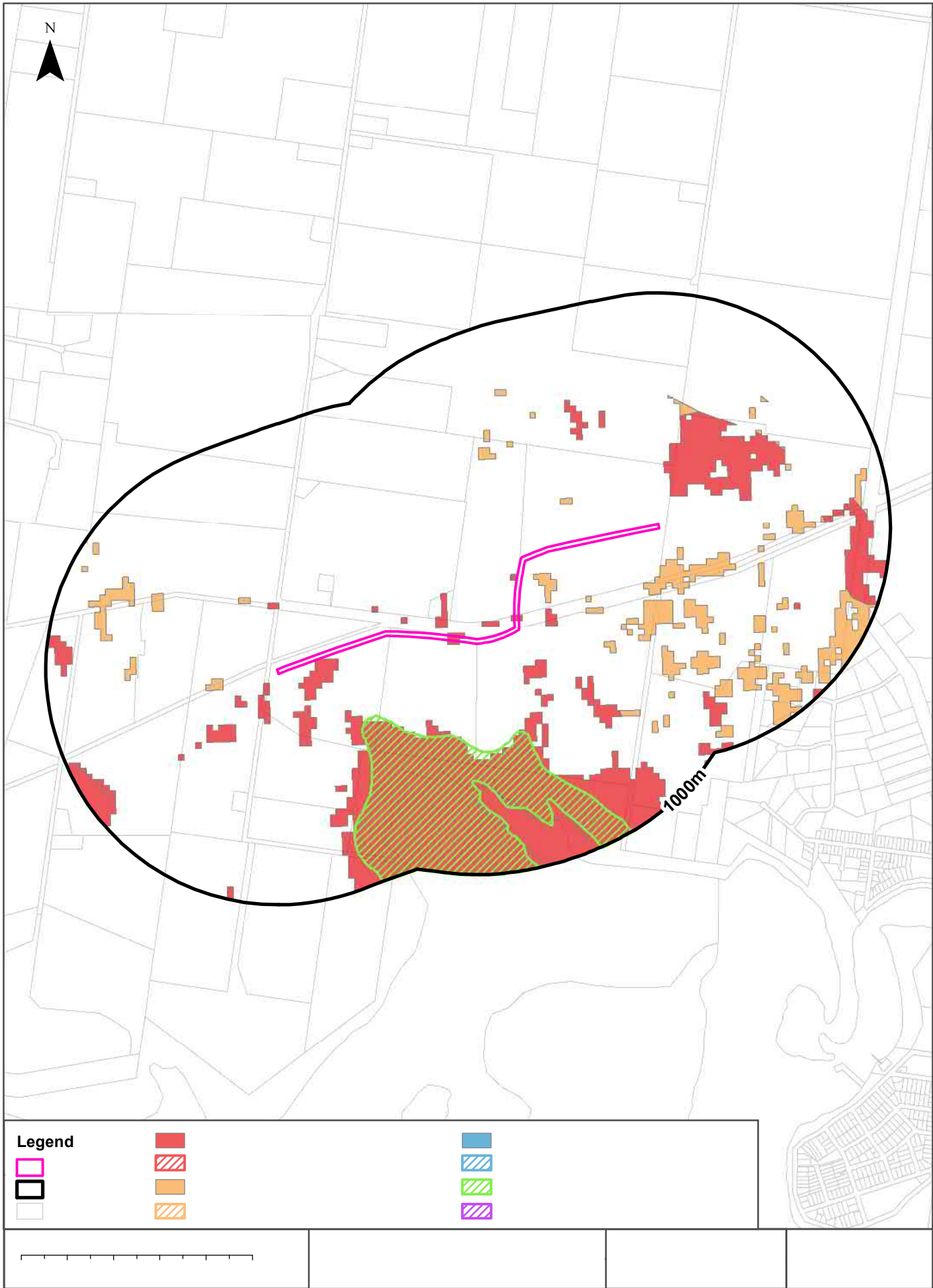
Native Vegetation Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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### RAMSAR Wetlands

What RAMSAR wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
10	Western Port	Western Port	431m	South

RAMSAR Wetland Area Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning  
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## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Groundwater Dependent Ecosystems Atlas

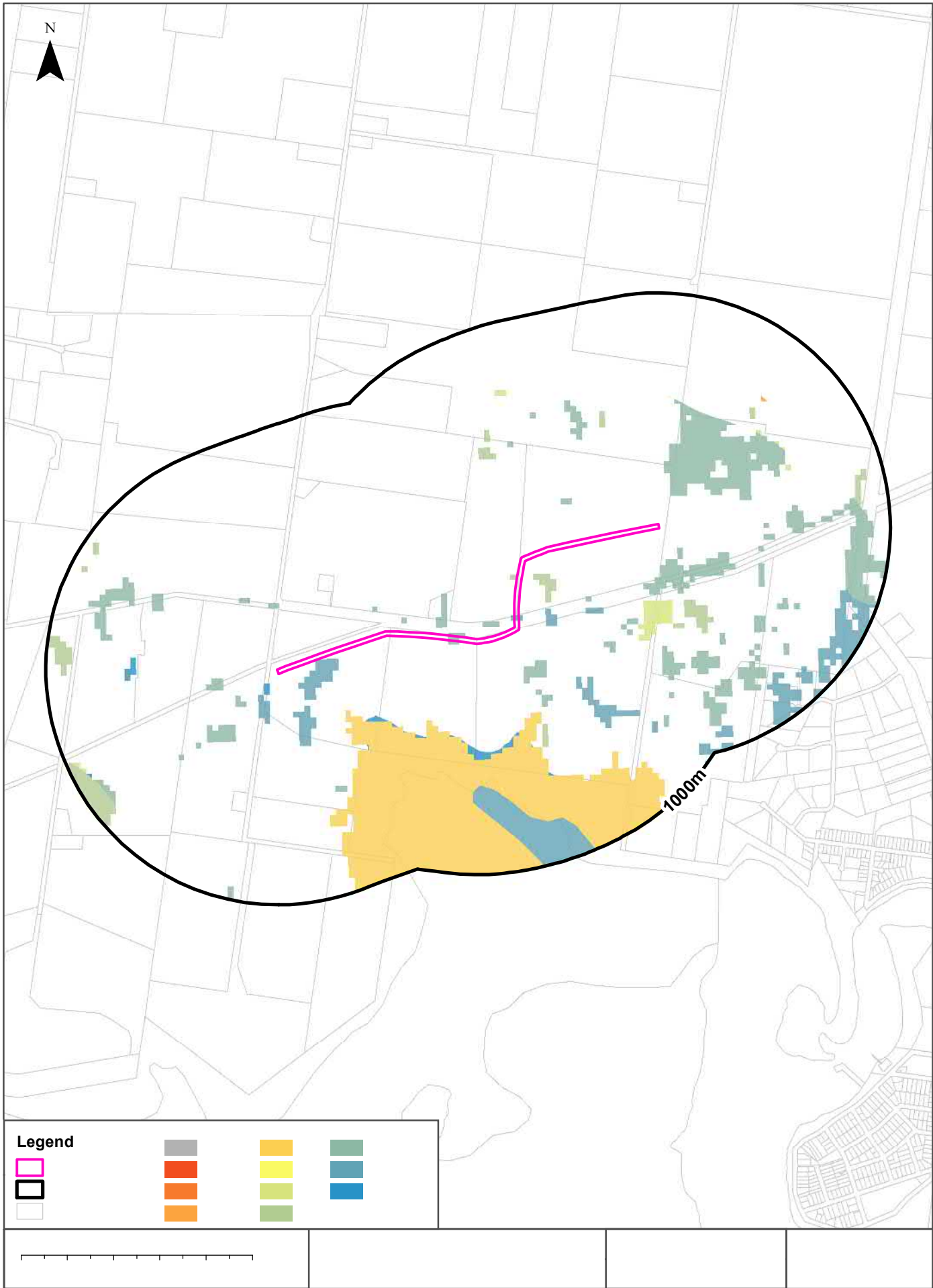
What GDEs exist within the dataset buffer?

GDE Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		High potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		Moderate potential GDE - from national assessment	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	44m
Aquatic		Known GDE - from regional studies	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		310m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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# Inflow Dependent Ecosystems Likelihood

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)





## Ecological Constraints

Crib Point to Pakenham Pipeline Corridor, Pakenham, VIC 3810 (Section 13)

### Inflow Dependent Ecosystems Likelihood

What IDEs exist within the dataset buffer?

GDE Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial		8	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		9	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial		7	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	3m
Terrestrial		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	57m
Terrestrial		4	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	248m
Terrestrial		6	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	291m
Aquatic		10	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Wetland		310m
Terrestrial		5	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	547m
Terrestrial		3	Low fault blocks, mainly of tilted and dissected sandstone; granite hills and islands, in two parts either side of Port Phillip Bay.	Vegetation	Unconsolidated sedimentary	689m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology  
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