

APPENDIX U

CONTAMINATED LAND ADVICE REPORT



Contaminated Land LGID Report

Victoria Park Redevelopment

Brisbane City Council

06 July 2023

→ **The Power of Commitment**





Report

06 July 2023

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From	Matthew Pomeroy	Project No.	12588098
Project Name	Victoria Park Contaminated Land Project		
Subject	Contaminated Land LGID Report – Victoria Park		

1. Introduction

GHD Pty Ltd ('GHD') has been engaged by Brisbane City Council ('BCC') to prepare this Contaminated Land Advice to support a Local Government Infrastructure Designation ('LGID') that is made over the Victoria Park / Barrambin site. The LGID is made over part of the site to give statutory effect and facilitate the delivery of elements of Victoria Park / Barrambin Master Plan ('Master Plan') which is intended to transform the 64-hectare parkland into a multi-function metropolitan park, with various spaces for passive and active recreation, along with opportunities to host an expanded range of diverse events and activations. The Master Plan sets out the roadmap for the park's redevelopment following community and stakeholder consultation and various technical studies, whereas the LGID will be the planning approval which allows elements of the master plan to be delivered on site.

1.1 Limitations

This report has been prepared by GHD for Brisbane City Council and may only be used and relied on by Brisbane City Council for the purpose agreed between GHD and Brisbane City Council as set out in section 1 of this report.

GHD otherwise disclaims responsibility to any person other than Brisbane City Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

2. Lots summary

The primary land parcels represent the areas where key infrastructure and structures are contemplated under the Master Plan in context of the proposed Designation Area. Of the 21 lots forming the proposed Designations Area, eight (8) are primary land parcels. A summary of land lots are provided in Table 1.

Neighbouring lots listed on the EMR are included in Table 2. EMR listed lots are presented on Figure 1.

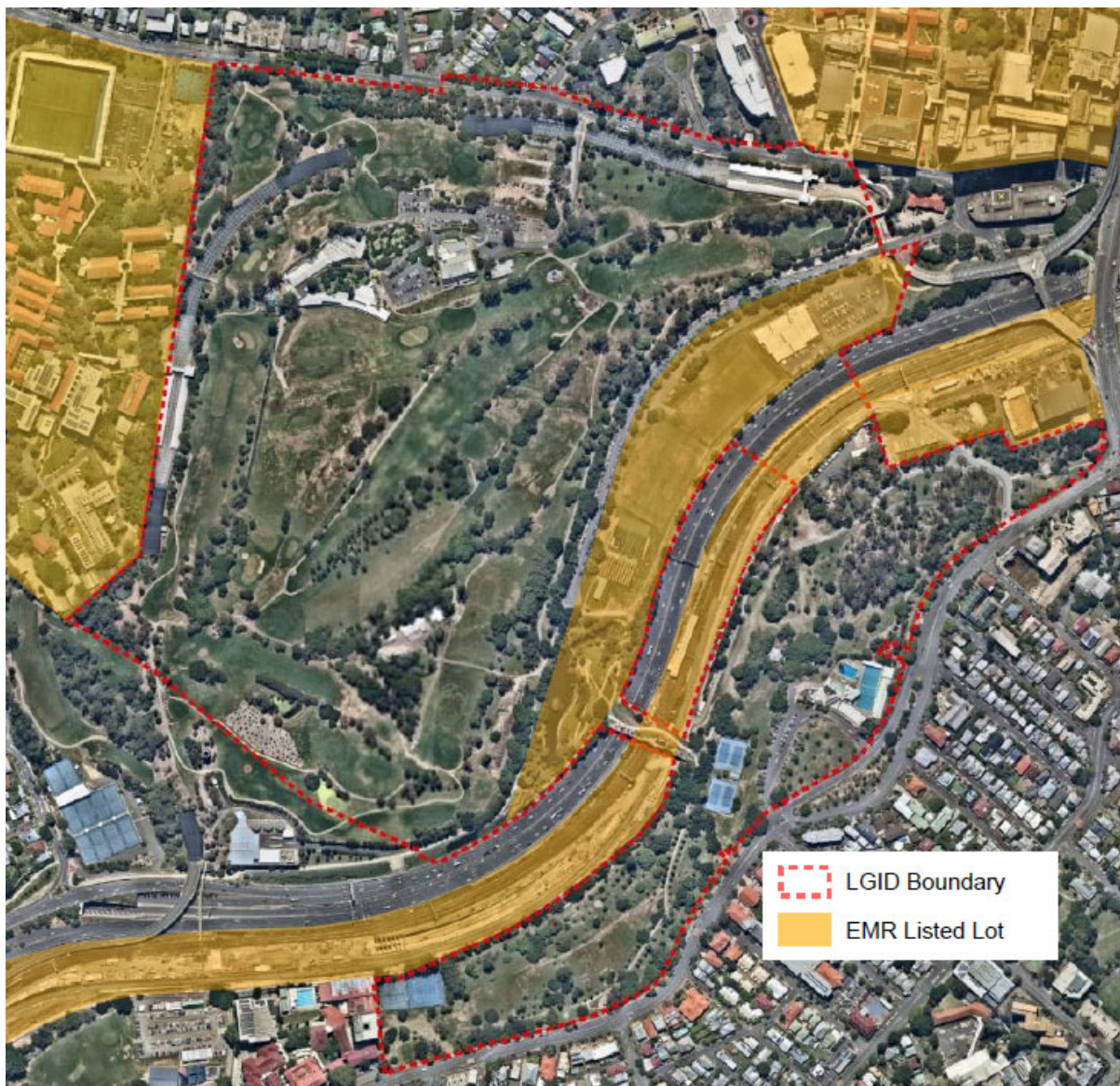
Table 1 Site lot summary including EMR listing

Reference	Lot ID/Address	Owner	EMR Status
Primary Land Parcels	3. SP185072	Brisbane City Council	Not listed
	5. SP288407	Brisbane City Council	Hazardous Contaminant
	4. SP185073	Brisbane City Council	Not listed
	5. SP184695	Brisbane City Council	Not listed
	4. CP909154	Brisbane City Council	Not listed
	3. CP909154	Brisbane City Council	Not Listed
	2. CP909154	Brisbane City Council	Not Listed
	5. SP185074	Brisbane City Council	Not listed
Secondary Land Parcels North of ICB / Railway	16.SP232282	Queensland Department of Transport and Main Roads	Not listed
	35.SP185069	Queensland Department of Transport and Main Roads	Not listed
	30.SP185066	Queensland Department of Transport and Main Roads	Not listed
	31.SP185066	Queensland Department of Transport and Main Roads	Not listed
	32.SP185066	Queensland Department of Transport and Main Roads	Not listed
	33.SP185066	Queensland Department of Transport and Main Roads	Not listed
	34.SP185066	Queensland Department of Transport and Main Roads	Not listed
	35.SP185065	Queensland Department of Transport and Main Roads	Not listed
	36.SP185069	Queensland Department of Transport and Main Roads	Not listed
	20. SP185064	Queensland Department of Transport and Main Roads	Not listed
Secondary Land Parcel Traversing ICB / Railway	32.SP232285	Queensland Department of Transport and Main Roads	Not listed
	13.SP232284	Queensland Department of Transport and Main Roads	Not listed
	2.SP327040	Queensland Department of Transport and Main Roads	Not listed
Road Reserve	Part of Herston Road, Herston QLD 4006	Brisbane City Council	Not listed
	Part of Bramston Terrace, Herston QLD 4006	Brisbane City Council	Not listed
	Part of Wyndham Street, Herston WLD 4006	Brisbane City Council	Not listed
	Part of Inner City Bypass, Spring Hill QLD 4000	Brisbane City Council	Not listed
	Part of Gilchrest Avenue, Herston QLD 4006	Brisbane City Council	Not listed
	Part of Gregory Terrace, Spring Hill QLD 4000	Brisbane City Council	Not listed

Table 2 *EMR listed lots neighbouring the Site*

Lot ID	Owner	EMR Status
32. SP232285	Queensland Rail Limited	Railway Yard
496. SL12309	Energex Limited	Petroleum Product or Oil Storage
341. SP176155	Queensland University of Technology	Hazardous Contaminant
1546. SP318644	Metro North Hospital and Health Service	Hazardous Contaminant Petroleum Product or Oil Storage
3. SP316602	Metro North Hospital and Health Service	Hazardous Contaminant Petroleum Product or Oil Storage
1545. SP316602	Metro North Hospital and Health Service	Hazardous Contaminant Petroleum Product or Oil Storage

Figure 1 EMR status of Victoria Park and neighbouring properties. LGID boundary (yellow dash) included for reference purposes



As the contamination status of land parcels is assessed on Victoria Park, additional lots may be added to the EMR.

3. Site history

The Site history is summarised as follows:

- The chain of waterholes, within the low-lying area between what is now Herston Road and Gregory Terrace, from the Normanby Junction to the Exhibition Grounds was first known as York's Hollow by European settlers. The name Victoria Park began to be adopted during the 1960's.
- Prior to European settlement of Brisbane, the area had been a meeting ground for Aboriginal tribes.
- The area was initially occupied by brickmakers (excavation of clay pits sourced from alluvium within the Hollow) and as a temporary campground by recently arrived immigrants.

- A portion of the park was set aside for a rifle range in 1864 to be used by the Queensland Voluntary Brigade. The area was returned to parkland in 1883.
- In 1866 occupants of York's Hollow (including brickmakers and settlers) were removed and the areas fenced to secure the area as a public park.
- In 1869 an area of the park on the western boundary was granted to Council for use as a manure depot.
- Following initial use for nightsoil disposal it was mainly used for storing dry earth, stabling horses and housing the night carts after the opening of another nightsoil depot in 1874. The depot was completely closed in 1886.
- Victoria Park was temporarily reserved for recreation purposes in 1875.
- In 1882 the centre of the park was excised for construction of the Sandgate Railway line (Exhibition Line). An embankment was built to carry the new railway track which split the park into two portions.
- In 1877 the south western portion of the site was excised for Brisbane Grammar School.
- In the 1880's an area on the north eastern boundary of the park (Bowen Bridge Road frontage) was used for quarrying and areas of the park were used as a landfill with trenching undertaken for burying waste.
- Landfilling on the eastern side of the railway line appeared to be completed by the late 1890's and the low-lying area to the west of the railway line (adjacent to the water course) was subsequently used for landfilling. However, regular inundation of the western area created a public health issue through pollution of the water course which resulted in changes in the location of subsequent landfilling in the area and construction of measures to prevent pollution of the water course.
- Landfilling within the park ceased in 1901 with quarrying adjacent to Bowen Bridge Road ceasing at some point during the early 1910's.
- The former quarry was leased to the Queensland State Wool Committee during the First World War with the area used a 'dumping plant' and numerous woolsheds constructed and accessed by a new rail siding. Part of the area was subsequently occupied by BCC Electricity Department for establishment of workshops, stores and garages which is now the owned and operated by Energex.
- A sewer was constructed through the site during the early 1920's to prevent sewer discharge entering the water course on the western boundary. Following completion of the works in 1923, development of the central portion of the site (west of railway line) was undertaken to enable establishment of sports fields within the former low-lying area which were subsequently leased to numerous third parties. Filling of the water course involved construction of covered drains (i.e. under the current playing fields).
- Construction of Gilchrist Avenue commenced in 1930. Construction involved use of "spoil from city and private works to reduce cost".
- In 1931, construction of the Victoria Park Golf Links was undertaken and completed. The lake between Gilchrist Avenue and the rail corridor was also constructed during this period.
- Victoria Park was requisitioned in 1942 for use as a military camp during World War II.
- Vacation of the Victoria Park military camp began in 1944 continuing through to 1946. Following vacation by the military, the vacant buildings were leased for a variety of purposes including University/medical research and public housing. The buildings were then progressively vacated and demolished or on-sold with the last of these buildings removed in 1975. Following removal of the old military buildings the golf course resumed the area with new fairways and greens.
- The Centenary Pool on the eastern side of the park was constructed during 1957/58 with planting of 800 eucalypts undertaken within the surrounding area following removal of the military buildings.
- The eastern corner of the park was resumed in 1978 for the construction of a multi-storey car park servicing the hospital and associated road upgrades.
- The Inner-City Bypass and Inner Northern Busway were constructed during the 1990's with the Inner-City Bypass running alongside the existing rail corridor and Busway running around the eastern and northern edges of the park. Anecdotal information from these works indicates that spoil generated from excavation of the Busway through the park was disposed in the north west corner of the Site (between the Busway and Herston Road).

3.1 Aerials review summary

Early history (pre-1936) is not able to be established due to the earliest aerial photograph being 1936. A summary of aerial imagery (included in Appendix A) is as follows:

- Filling of the site may have been undertaken, particularly in the eastern low-lying areas, during establishment of the golf course.
- It is likely that filling was undertaken during establishment of open space/sports fields within the former York's Hollow area between Gilchrist Avenue and the railway line.
- Filling may have been undertaken within the northern and eastern portions of the site in the areas of the former army barracks. Filling may have been undertaken during establishment of the barracks or during subsequent establishment of the golf course/parkland.
- The surrounding area appears to have been a mixture of residential (north of Herston Road and east of Gregory Terrace) and commercial type properties (university – south west and west, hospital – north, Energex substation – north east, school – south east) since the 1930's.

4. Potential contaminants of concern (PCOC)

Based on the former site uses and site history summary, the PCOC are included in Table 3.

Table 3 Potential contaminants of concern identified from the site history summary

Source/Area	Potential Contaminants of Concern
<i>On-Site Sources</i>	
Uncontrolled filling/landfilling undertaken within the former York's Hollow area between Gilchrist Avenue and lower portions of Gregory Terrace slopes.	Burial of waste, ash and contaminated fill (heavy metals, hydrocarbons etc.).
Filling/construction of the railway corridor adjacent to the former York's Hollow area.	Import of contaminated fill (heavy metals, hydrocarbons etc.).
Activities associated railway operations (maintenance of corridor areas and running of locomotives and rolling stock).	Pesticides/herbicides used for vegetation management. Lead (smoke emissions, brake linings) and asbestos (brake linings) deposition from locomotives and rolling stock.
Construction and operation of rifle range through central portion of site.	Import of contaminated fill (heavy metals, hydrocarbons etc.) during construction (shooting mounds). Lead associated with gunfire (casings, shot etc.).
Filling of former quarry area within eastern portion of site.	Import of waste, ash and contaminated fill (heavy metals, hydrocarbons etc.).
Ground works associated with construction of the military camp areas.	Import of contaminated fill (heavy metals, hydrocarbons etc.).
Operation of Military Camps and subsequent housing adjacent to Herston Road and Gregory Terrace.	Unauthorised waste disposal and nightsoil deposition.
Operation of motor pool at the Herston Road Military Camp.	Storage and disposal of fuels and oils.
Use of northern portion of the York's Hollow area as a staging area during infrastructure upgrades.	Import and burial of contaminated fill (asbestos, heavy metals, hydrocarbons etc.).
Management of the park and golf course.	Herbicides for vegetation management. Storage and disposal of fuels, oils and paints. Use of lead paint and ACM within on-site structures (storage sheds, garden edging etc.).
<i>Off-Site Sources</i>	
Historical manure/night soil depot towards west.	Burning of waste and subsequent burial of ash/waste. Contamination of local perched aquifers.
Former cattle/sheep yards towards west.	Use of pesticides. Contamination of local perched aquifers.
Energex workshop/depot adjacent to eastern boundary of site.	Storage and disposal of fuels and oils. Storage and disposal of PCB oils.

5. Summary

The Site is expected to contain contamination from a range of historical sources. The location of potential contaminants across the Site is not able to be accurately defined based on the age of the Site and associated aerial photography dates limitation. Contaminant types are expected to vary by area based on the former land uses.

6. Recommendations

Contaminated land investigations are proposed for the Site in accordance with the proposed assessment and management strategy included in Figure 2.

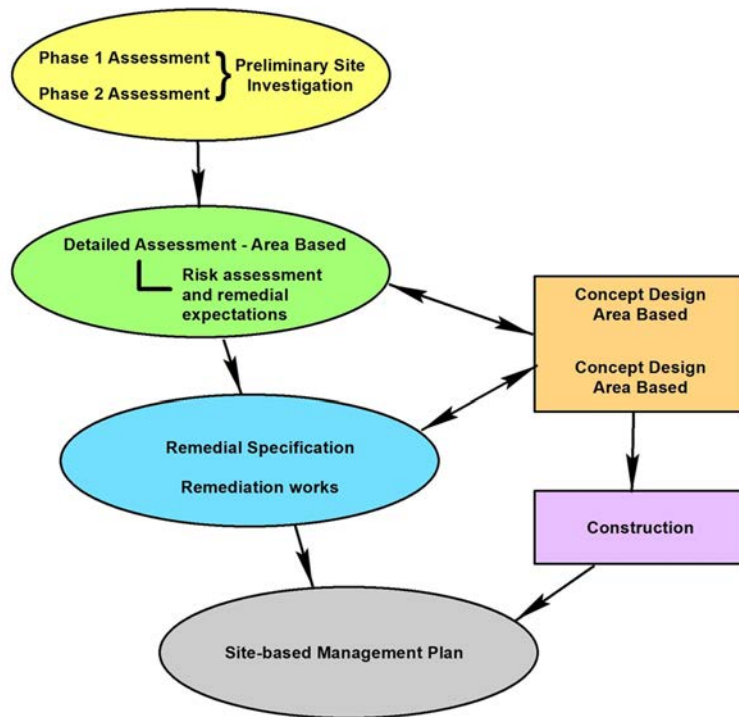


Figure 2 Contaminated land assessment and management strategy.

Assessments are proposed to be undertaken in compliance with relevant legislation:

- NEPC 2013. National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended by the National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1), National Environment Protection Council, May 2013 (NEPM 2013)
- Department of Environment and Science (DES), 2018. Queensland Auditor Handbook for Contaminated Land: Module 6: Contaminated Land Investigation Documents. Brisbane: DES, Queensland Government
- Queensland Government, Environmental Protection Act 1994
- Queensland Government, Environmental Protection Regulation 2019

Following remediation of each area of the Site, each area will be confirmed by the SQP to be suitable for the proposed site use i.e. compliant against relevant health-based and environmental guidelines.

7. Close

If you require any further detail please do not hesitate to contact me.

Appendices

Appendix A

Historical aerial photographs



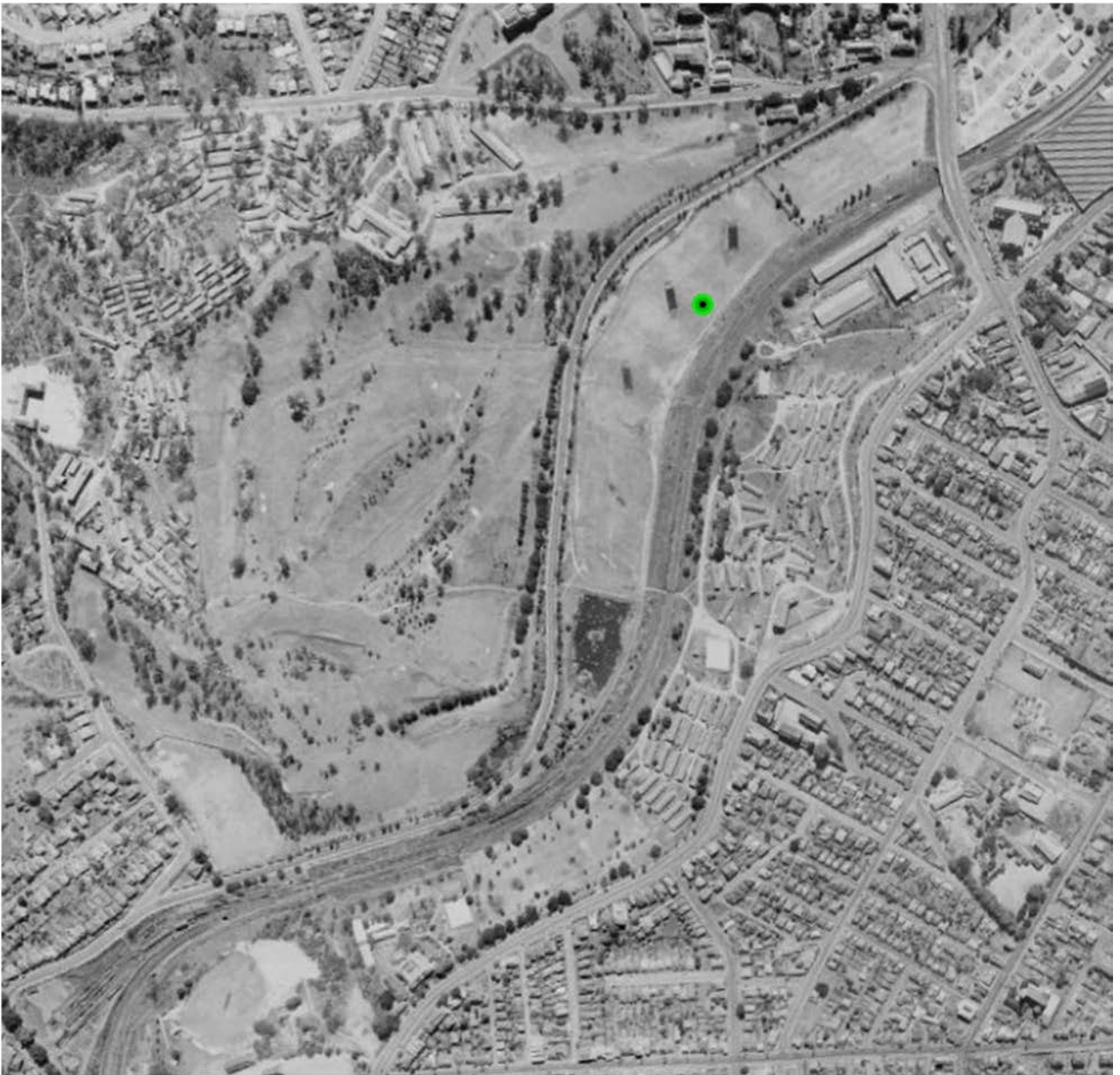
1936



1946



1949



1951



1955



1958



1964



1969



1970



1971



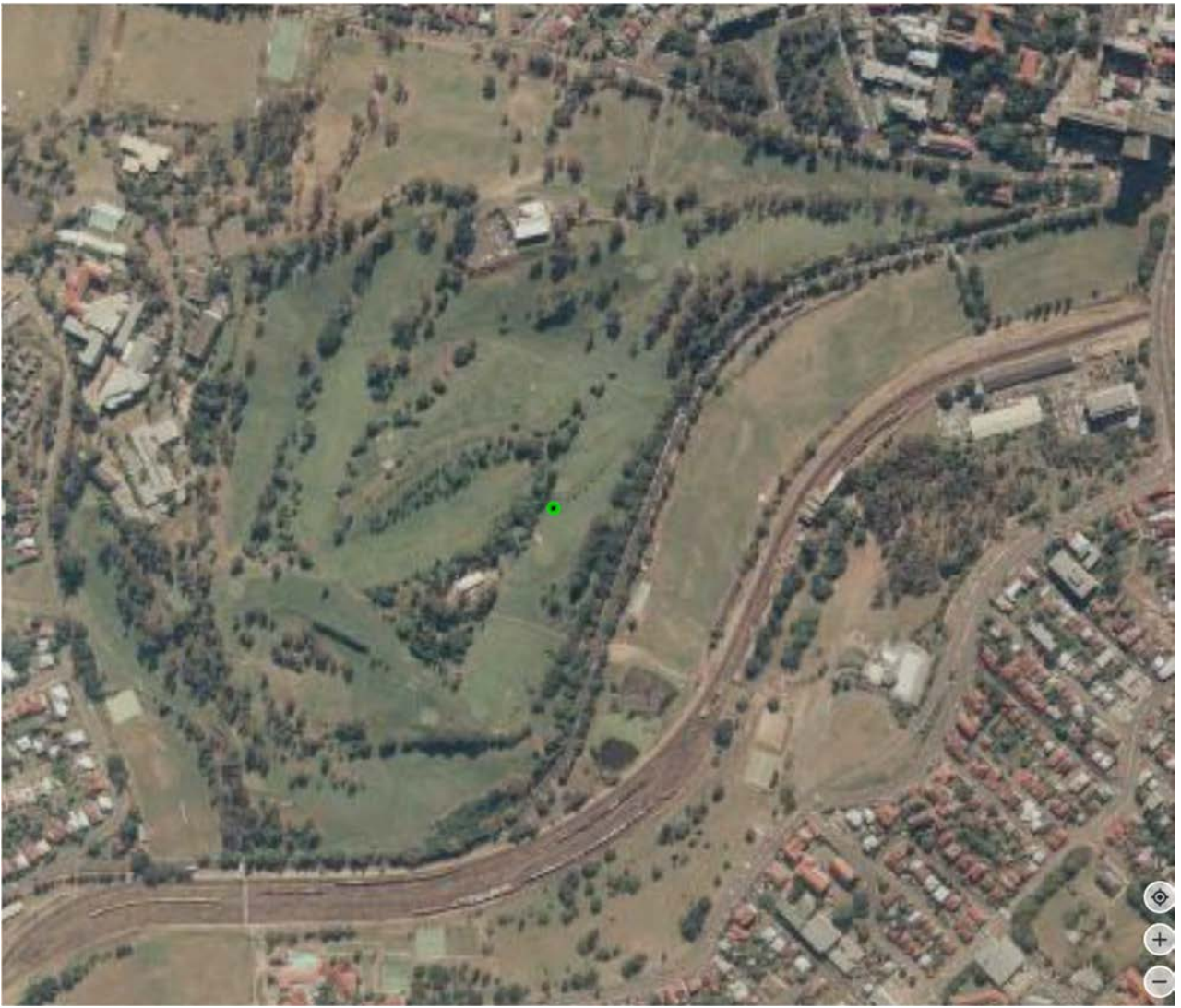
1974



1977



1980



1982



1987



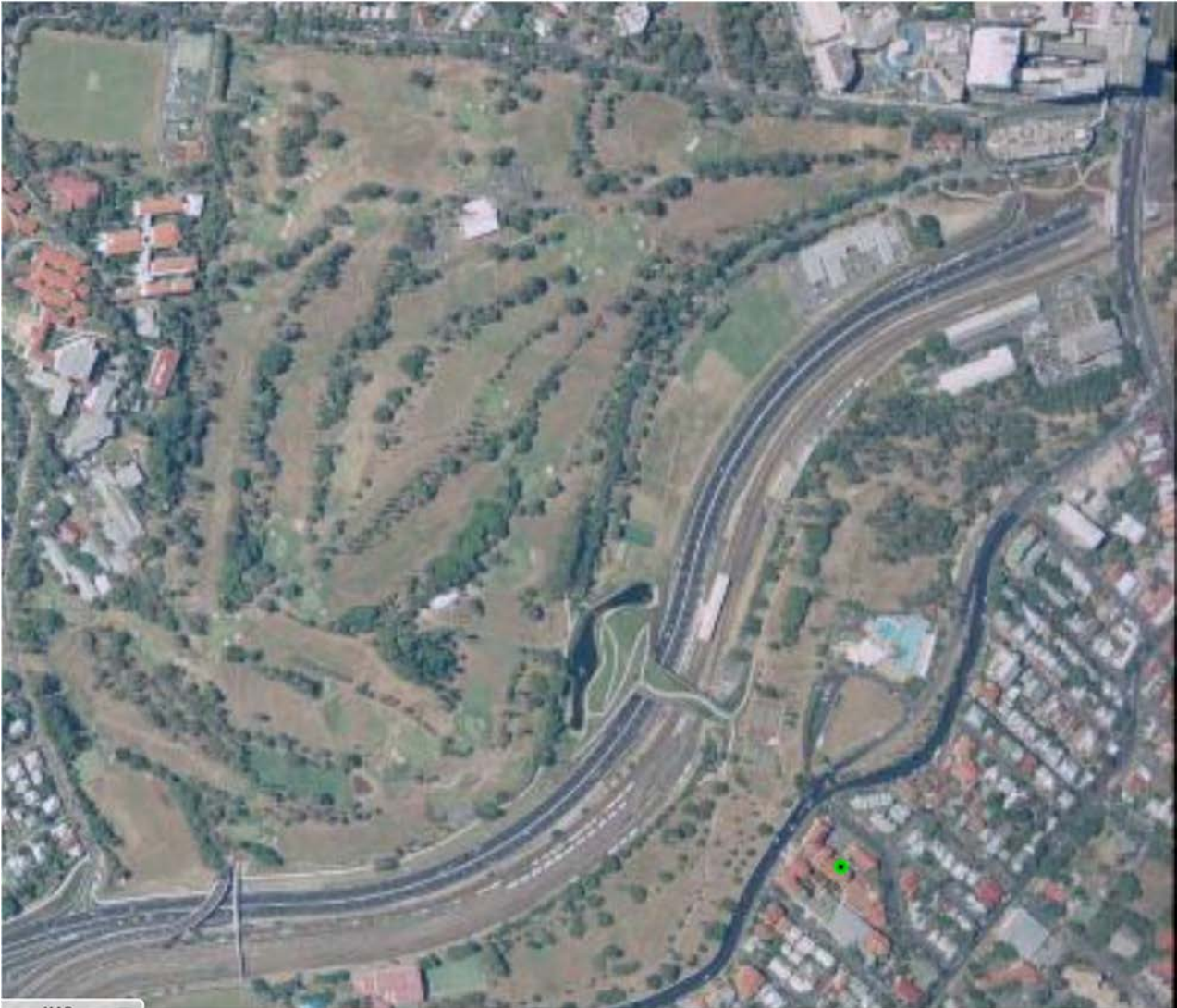
1990



1994



1998



2002

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S4	3	T. Howells	M. Pomeroy	<i>Matthew Pomeroy</i>	M. Pomeroy	<i>Matthew Pomeroy</i>	06/07/23

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