

Project No.: 018-150C

26 August 2021

Economic Development Queensland
Level 14, 1 William Street
BRISBANE QLD 4000

Email: **Wendy.Brewster@dsdmip.qld.gov.au**

Attention: Ms W Brewster

Dear Wendy

**RE: BROADSCALE CONTAMINATION ASSESSMENT
NORTHSHORE HAMILTON – WATERFRONT PRECINCT
MACARTHUR AVENUE, HAMILTON**

**PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL**

Approval no: DEV2021/1200

Date: 28/07/2022



This letter report outlines a broadscale contamination assessment for Waterfront Precinct at Hamilton Northshore. It is anticipated that this broadscale assessment will be used as an overview document in assessing potential land uses across the precinct and will be supplemented as required for specific development proposals.

It is further anticipated that land use proposals across the Waterfront Precinct will comprise a mix of temporary commercial uses and public open space.

1.0 INTRODUCTION AND BACKGROUND

It is understood that Economic Development Queensland (EDQ) is planning a series of temporary development opportunities across the Waterfront precinct at Hamilton Northshore. The area covered by this precinct is shown on attached Drawing No. 1 Rev A. The precinct comprises part of Lot 302 on SP257483, Lots 1201-1203 on SP160055 and Lot 1302 on SP195300.

The current precinct masterplan is attached and indicates a variety of uses including:

Public Use Commercial Spaces

- Eat Street
- Blockyard Shed
- Blockyard Workshops
- The Deck
- Blockyard Spaces
- Flipside Circus

Public Open Recreation Spaces

- Maritime Pop Up Park
- Riverwalk and pedestrian pathways
- The Lawn
- Tennis Australia tennis courts
- Spaces for future activation/events
- Car Park areas which may also be used for temporary pop up events

2.0 SCOPE OF WORK

This report is a broadscale report on contaminated land findings within the Hamilton Northshore – Waterfront Precinct and contains high level comment on the suitability of the land for the land uses described above and set out in the attached masterplan.

2.1 Site Identification

Details of each property lot are presented below and Smartmaps showing the locality of each property lot are presented in Drawing No. 1 Rev A.

Table 1: Summary of Registered Plan and Current Title Search Information

Real Property Description	Lot 302 on SP257483
Registered Owner	Minister for Economic Development Queensland
Site Area	Approx. Area included in the Waterfront Precinct: 44,450m ² Total Lot Area: 90,780m ²
Current Land Use (At the time of investigation)	Vacant
Local Government	Brisbane City Council (BCC)
Real Property Description	Lot 1201 on SP160055
Registered Owner	Minister for Economic Development Queensland
Site Area	Lot Area: 10,560m ²
Current Land Use (At the time of investigation)	Eat Street Northshore and Blockyard Spaces
Local Government	BCC
Real Property Description	Lot 1202 on SP160055
Registered Owner	Minister for Economic Development Queensland
Site Area	Total Lot Area: 24,350m ²
Current Land Use (At the time of investigation)	Tennis courts, the Deck, public open space and car park
Local Government	BCC
Real Property Description	Lot 1203 on SP160055
Registered Owner	Minister for Economic Development Queensland
Site Area	Total Lot Area: 5,263m ²
Current Land Use (At the time of investigation)	Eat Street Northshore
Local Government	BCC
Real Property Description	Lot 1302 on SP195300
Registered Owner	Minister for Economic Development Queensland
Site Area	Total Lot Area: 9,448m ²
Current Land Use (At the time of investigation)	Car Park, tennis courts, public open space
Local Government	BCC

2.2 Background Information

Investigation of contamination has been undertaken for specific areas within the wider Waterfront precinct as shown on Drawing No. 2A Rev A and Drawing 2B Rev A, however, to date, there hasn't been a co-ordinated contamination investigation over the entire precinct area. Relevant reports for each lot are set out as follows:

Lot 302 on SP257483

*Stage 1 Environmental Assessments,
Patrick the Australian Stevedore
Maritime Wharf Sub-leased areas
Parsons Brinckerhoff: Project No. 2136274A
October 2003*

*Tank Pit Validation
Patrick Wharf Redevelopment
Macarthur Avenue, Hamilton
Butler Partners: Project No. 06175
9 June 2006*

*Baseline Contamination Assessment
Eastern Lease Area – Timber Site
221 Macarthur Avenue, Hamilton
Butler Partners: Project No. 018-150H
9 September 2020*

*Stage 1 Environmental Site Assessment
Hamilton Wharf Queensland, P&O Ports
Lambert & Rehbein Pty Ltd: Ref. B04614ER001
27 June 2005*

*Detailed Site Investigation Stage 2 Environmental
Site Assessment
1 Bincote Street, Hamilton
Butler Partners: Project No. 012-129C
9 December 2016*

*Baseline Contamination Assessment
Western Lease Area – Timber Site
221 Macarthur Avenue, Hamilton
Butler Partners: Project No. 018-150H
9 September 2020*

Lot 1201 on SP160055

*Contamination Assessment
Blockyard Spaces Northshore Hamilton
Lot 1201 Macarthur Avenue, Hamilton
Butler Partners: Project No. 018-150L
30 June 2021*

Lot 1202 on SP160055

*Contaminated Land Auditor Interim Certification Advice Letter
257 Macarthur Avenue, Hamilton (Lot 1202 on SP160055)
Mach1 Environmental
02 June 2017*

Lot 1203 on SP160055

Nil

Lot 1302 on SP195300

*Contaminated Land Auditor Interim Certification Advice Letter
281 Macarthur Avenue, Hamilton (Lot 1302 on SP195300)
Mach1 Environmental
02 June 2017*

The two letters (for Lot 1202 and 1302 respectively) reference reports produced by Environmental Management & Remediation (EM&R) that have been reviewed by the Contaminated Land Auditor (CLA) Robin Wagland of Mach1 Environmental, however, no report copies have been provided to Butler Partners.

In very general terms, investigations across the site have shown a subsurface profile as set out in Table 2.

Table 2: Summary of Subsurface Conditions

Depth to Top of Strata	Description
Ground Surface	CONCRETE SLAB/PAVEMENT GRAVEL:
0.24m to 0.3m	FILL/POSSIBLE FILL: A surface layer of variable fill/possible fill (comprising a mixture of sand, clay and gravel).
1.0m to 2.0m	YOUNG ALLUVIUM: Interbedded layers of generally very loose to medium dense sands and soft to firm clays.
24.7m to 27.3m	RESIDUAL SOILS/OLD ALLUVIUM: Underlying the Young Alluvium were stiff to hard clays and medium dense to very dense sands.

2.3 Site Description

At the time of writing, the site is generally flat other than in the north-western corner where there is a step down to the Flipside Circus and adjacent vacant property fronting MacArthur Avenue. Buildings are present at the Blockyard Workshops, Blockyard Shed and The Deck. Eat Street Northshore comprises a collection of stacked shipping containers. Tennis courts and landscaped areas are present within the eastern portion of the site surrounded to the north and east by large areas of open car park. Car parks are also present across much of the central portion of the site.

Views of sections of the site at the time of preparing this report are present in Photograph 1 to Photograph 7.



Photograph 1: Panoramic view of part of the site looking south towards Blockyard Spaces with Eat Street Northshore visible in the top left of the photograph



Photograph 2: Panoramic view of part of the site looking north from near Blockyard Spaces towards Blockyard Workshops with Eat Street Northshore visible in the right hand side of the photograph



Photograph 3: Looking east across the eastern car park area from The Shed



Photograph 4: View east across the tennis courts from the landscaped area



Photograph 5: The Deck with landscaped area



Photograph 6: Looking east across the Maritime Pop Up Park



Photograph 7: Looking east across the tank site to the future Flipside Circus site

2.4 Geology

Reference to the Geological Survey of Queensland's 1:31,680 Brisbane Map Sheet 3 indicates that the site is mapped as comprising alluvial sand, silt, mud, clay and gravels, in turn underlain by the Tingalpa Formation comprising carbonaceous shale, lithic sandstone with minor conglomerate and coal.

2.5 Surrounding Land Uses, Off-Site Activities and Receptors

The site is bounded by industrial land uses, with the Brisbane River to the south and Macarthur Avenue further north of the site.

The nearest waterway is the Brisbane River located directly south of the site. The Royal Queensland Golf Club is located approximately 600m east of the site. The site is located approximately 6km north-east of the Brisbane CBD.

The site is located adjacent to a Category B environmentally sensitive (Marine Park) area, the Brisbane River. There are no other environmentally sensitive areas located within the vicinity of the site.

2.6 EMR/CLR Search

A copy of the Department of Environment and Science (DES) Environmental Management Register (EMR) and Contaminated Land Register (CLR) Searches for each property lot are attached and a summary of the EMR information is presented in Table 3.

Table 3: *Property Lot EMR Listing Status and corresponding reports*

Lot on Plan	EMR Site ID	Reason for EMR/CLR Listing
Lot 302 on SP257483	133052	EMR listed as a result of amalgamation of Lots: 783 SL4449 (Chemical storage >10 tonne of dangerous chemicals) + 1005 SL6739 (Petroleum product or oil storage) + 859 SL4540 (Chemical storage).
Lot 1201 on SP160055	Never listed	Not listed on the EMR or CLR.
Lot 1202 on SP160055	87683	EMR listed for Petroleum Product or oil storage as a result of subdivision from Lot 877 on SL4641.
Lot 1203 on SP160055	87686	EMR listed for Petroleum Product or oil storage as a result of subdivision from Lot 622 on SL2819.
Lot 1302 on SP195300	70386	Listed on EMR for Petroleum product or fuel storage as a result of subdivision from Lot 1164 on SP108460.

3.0 SITE HISTORY REVIEW

3.1 Aerial Photographs

Eight historical aerial photographs were available for review from BCC, Department of Natural Resources and Mines (DNRM) and Google Earth from 1946, 1951, 1964, 1974, 1985, 1991, 1998 and 2004. The observations in relation to the site and surrounding area for each historical aerial photograph are presented below.

1946: In general the site appears largely vacant. Roads or paths are observed to pass through the site. There are wharves present along the southern boundary of the site and some equipment storage and small sheds appear scattered across the site area. A single large warehouse is visible in the central portion adjacent to the southern boundary. Warehouses can be seen west of the site, likely used to store goods unloaded from ships. An estuary is observed north of the site. An extract of the 1946 aerial photograph is presented as Photograph 8, with the approximate site boundary marked in red.



Photograph 8: Extract from the 1946 aerial photograph (Source: BCC, Image Date: 1946)

1951: The site and surrounding area appears to be similar to the 1946 aerial photograph. A rail track appears to have been constructed through the site connecting the wharf area to the south-east with the land. An extract of the 1951 aerial photograph is presented as Photograph 9.



Photograph 9: Extract from the 1951 aerial photograph

1964: The site appears to be largely paved with hardstand except for the eastern end. The wharf structure adjacent to the southern site boundary is more substantial than in the 1951 photograph, but the rail track leading from the wharf is still visible. North of the site, the estuary observed in the 1946 aerial photograph has been filled. Additional warehouses can be observed west of the site. Overall, the site and surrounding area appear to be more heavily utilised than in the 1951 photograph. An extract of the 1964 aerial photograph is presented as Photograph 10.



Photograph 10: Extract from the 1964 aerial photograph

1974: The site and surrounding area appear similar to the 1964 aerial photograph with some additional structures and storage observable. An extract of the 1974 aerial photograph is presented in Photograph 11.



Photograph 11: Extract from the 1974 aerial photograph

1985: The surrounding area appears similar to the 1978 aerial photograph. Multiple storage tanks have been erected in the western portion of the site and new structures can be observed across the entire site area. An extract of the 1985 aerial photograph is presented in Photograph 12.



Photograph 12: Extract from the 1985 aerial photograph

1991: The site and the surrounding area appear generally similar to the 1985 aerial photograph. An extract of the 1991 aerial photograph is presented in Photograph 13.



Photograph 13: Extract from the 1991 aerial photograph

2004: The site appears generally similar to the 1991 aerial photograph although more heavily utilised and additional tanks are present in the western portion of the site. The surrounding land to the north and east is being utilised for car storage. An extract of the 2004 aerial photograph is presented in Photograph 14.



Photograph 14: Extract from the 2004 aerial photograph.

3.2 Potentially Contaminating Activities

Potentially contaminating activities identified in the limited site history review associated with port uses on the site and the presence of fill material which appears to be dredge sand, commonly found as fill in the area include:

- metals;
- organochlorine pesticides (OCPs);
- polycyclic aromatic hydrocarbons (PAH);
- total recoverable hydrocarbons (TRH); and
- benzene, toluene, ethyl benzene, xylenes and naphthalene (BTEXN).

4.0 SUMMARY OF FINDINGS AND IMPLICATIONS OF EXISTING INVESTIGATIONS

Lot 302 on SP257483

Stage 1 Environmental Site Assessments (ESA), Patrick the Australian Stevedore – Maritime Wharf Sub-Leased Areas Parsons Brinckerhoff (PB), December 2003.

Area Investigated:

PB's Stage 1 ESA investigated three portions of the former Lot 1165 on SP108460, occupied at the time by Omega Chemicals, Craig Mostyn and Bulk Cargo Service.

Objectives:

The report was intended to identify and assess the potential for contamination based on the site history, former and current land uses and a targetted intrusive soil sampling program. Previous environmental reports are reviewed and summarised and identify areas of potential contamination.

Scope of Works:

Site history review, interviews with relevant employees, site inspection, aerial photograph review, limited intrusive investigation at two locations in three areas.

Criteria:

Draft guidelines Queensland – Exposure Setting F (Commercial/Industrial land use).

Findings:

Old maintenance/workshop area are a potential source of run-off contamination to stormwater and identified as storing fuel and oil. An incinerator was formerly located on site. There is a potential for contamination from historical pipeline leakages. Ash fill was identified in two of the nine bores and four of the nine bores terminated between 0.6m and 1.3m due to refusal on a subsurface concrete slab

Stage 1 Environmental Site Assessment, Hamilton Wharf Queensland, P&O Ports Lambert & Rehbein (L&R), 27 June 2005.

Area Investigated:

L&R's Stage 1 ESA concentrated on a portion of the former Lot 1165 on SP108460 that is now the western portion of Lot 302 on SP257483.

Objectives:

To assess the potential occurrence of contamination that could be attributed to P&O activities.

Scope of Works:

Site history review and intrusive investigation at up to six locations to a depth of 3m.

Guidance:

Environmental Protection Authority (EPA) 1998 Draft Guidelines for the Assessment and Management of Contaminated Land & NEPM 1999 Schedule B1.

Criteria:

NEPM and EPA EILs

Findings:

The P&O Wharf area has been formed from dredged material, consisting of fine grained sands. The dredged material was analysed and found to be free of contamination from heavy metals, TPH/BTEX and PAHs. No hydrocarbon contamination was identified near the location of the former UST.

Conclusions and Recommendations:

The report concludes that no significant contamination has been identified within the soils and suggests that no further investigation is warranted.

Tank Pit Validation. Patrick Wharf Redevelopment, Macarthur Avenue, Hamilton Butler Partners, 9 June 2006.

Area Investigated:

Tank pit excavation following the removal of an 11,800L UST and sampling of the stockpiled material from the excavation.

Objectives:

To sample the walls, base and stockpiled material following the removal of a UST.

Scope of Works:

Attend site and sample the excavation walls and stockpiled material, submit for analysis and present results.

Guidance:

EPA January 1999 Draft Investigation Thresholds for Underground Storage Tanks using thresholds for sensitive land use.

Criteria:

NEPM and EPA EILs for sensitive land use

Findings:

All samples returned concentrations below laboratory limit of reporting for all analytes.

Conclusions and Recommendations:

The report concludes that no significant contamination has been identified within the excavated soils and recommends that the stockpiled soil can be used to backfill the excavation. Ash fill was also identified within the vicinity of the excavation and it was recommended to be further tested if it is required to be removed from site.

Detailed Site Investigation Stage 2 Environmental Site Assessment, 1 Bincote Street, Hamilton Butler Partners, 9 December 2016.

Area Investigated:

A portion of Lot 302 on SP257483 – approximately 9,000m².

Objectives:

To assess the potential occurrence of contamination that could be attributed to P&O activities.

Scope of Works:

Site history review and intrusive investigation at twenty-five locations.

Guidance:

EP Act 1994, EPOLA Act, EHP Guideline documents and NEPM 2013.

Criteria:

NEPM and EPA EILs.

Findings:

All test results returned concentrations of potential contaminants below the Department of Environment and Heritage Protection's (EHP's) HSL A and HSL B criteria and the site is suitable for ongoing industrial land use. Concentrations of benzo(a)pyrene, C₁₀-C₁₆, C₁₆-C₃₄ and >C₃₄ were identified above the adopted clean fill criteria and will require a soil disposal permit if required to be removed off site.

Conclusions and Recommendations:

The report concludes that no evidence was found that indicates Graincorp's operations negatively affected the soil contamination status of the site.

Suggested Action:

The samples analysed for heavy metals were only tested for 8 metals, but given that these areas were used for storage of hydrochloric acid, wool and ilmenite sands, there is potential for further metals contamination to exist, in particular, additional testing for ammonia and cobalt, found in concentrations above the NEPM EIL in Lot 1162 on SP108458 located to the north of this lot.

Need to further investigate the PAH concentrations previously detected within the ash fill, especially if the fill material is to be removed from site.

Baseline Contamination Assessment, Eastern Lease Area – Timber Site, 221 Macarthur Avenue, Hamilton Butler Partners, 9 September 2020

Area Investigated:

A portion of Lot 302 on SP257483 – approximately 3,800m²

Objectives:

To assess the potential occurrence of contamination that could be attributed to past use of the 'Timber Site' as well as potential contamination within site fill.

Scope of Works:

Site history review and intrusive investigation at nine locations.

Guidance:

EP Act 1994, AS4482.1-2005, DES Guideline documents and NEPM 2013.

Criteria:

NEPM EILs/HIL and HSL-A (clean fill) and HIL and HSL-D (commercial/industrial land uses).

Findings:

A single concentration of zinc in sample B8-1 exceeded the respective adopted clean fill criteria but below the commercial/industrial criterion. All other samples returned concentrations of all analytes tested below both the adopted clean fill criteria and the criteria for the protection of human health in a commercial/industrial land use scenario.

Conclusions and Recommendations:

Based on the intrusive investigation undertaken at the nine bore locations, Bores 7 to 15, on the Eastern Lease Area of the Timber Site and results for the samples analysed, it was concluded that one sample selected from Bore 8 reported a concentration of zinc exceeding the adopted clean fill criterion. However, this criterion is set for exposed material at the ground surface and in Bore 8, the zinc impacted material is at a depth between 0.02m and 0.3m and is capped with asphalt, therefore, it is not considered to pose a risk to human health in its current setting.

Suggested Action:

Any disturbance of soil in the area of Bore 8 should be monitored and any removal of fill off site will require a Soil Disposal Permit to be obtained from the DES. If the material remains in-situ and is undisturbed, the site is suitable for ongoing commercial land use.

Baseline Contamination Assessment, Western Lease Area – Timber Site, 221 Macarthur Avenue, Hamilton Butler Partners, 9 September 2020

Area Investigated:

A portion of Lot 302 on SP257483 – approximately 2,000m²

Objectives:

To assess the potential occurrence of contamination that could be attributed to past use of the 'Timber Site' as well as potential contamination within site fill.

Scope of Works:

Site history review and intrusive investigation at seven locations.

Guidance:

EP Act 1994, AS4482.1-2005, DES Guideline documents and NEPM 2013.

Criteria:

NEPM EILs/HIL and HSL-A (clean fill) and HIL and HSL-D (commercial / industrial land uses).

Findings:

Concentrations of copper, lead and zinc in three samples (B2-2, B2-3 and B5-3) and the duplicate of B2-2 (QC01), exceeded the respective adopted clean fill criteria. Of these, all copper and zinc results were below the commercial/industrial criteria. All lead results also exceeded the commercial/industrial criterion. One sample (B2-2) returned a concentration of benzo(a)pyrene exceeding the adopted clean fill criterion but below the commercial/industrial criterion. All other samples returned concentrations of all analytes tested below both the adopted clean fill criteria and the criteria for the protection of human health in a commercial/industrial land use scenario.

Conclusions and Recommendations:

Based on the intrusive investigation undertaken at the seven bore locations across the Western Lease Area of the Timber Site and results for the samples analysed, it was concluded that results in select samples from Bores 2 and 5 exceeded the adopted clean fill criteria for copper, lead and zinc and in addition, one sample from Bore 2 exceeded the adopted clean fill criterion for benzo(a)pyrene. The lead results in selected samples from Bores 2 and 5 also exceeded the criterion for protection of human health in a commercial/industrial land use setting (HIL-D). However, this criterion is set for exposed material at the ground surface and in both Bores 2 and 5, the lead impacted material is at a depth of 0.3m and is capped with asphalt, therefore, it is not considered to pose a risk to human health in its current setting.

Suggested Action:

Any disturbance of soil in the areas of Bores 2 and 5 should be monitored and any removal of fill off site will require a Soil Disposal Permit to be obtained from the DES. If the material remains in-situ and is undisturbed, the site is suitable for ongoing commercial land use.

All test locations within Lot 302 on SP257483 are shown on Drawing No. 2A Rev A.

Lot 1201 on SP160055

Contamination Assessment, Blockyard Spaces Northshore Hamilton, Lot 1201 Macarthur Avenue, Hamilton Butler Partners, 30 June 2021

Area Investigated:

A portion of Lot 1201 on SP160055 – approximately 2,500m²

Objectives:

To assess the potential occurrence of contamination that could be attributed to past use of the site for port activities as well as potential contamination within site fill.

Scope of Works:

Site history review and intrusive investigation at three locations.

Guidance:

EP Act 1994, AS4482.1-2005, DES Guideline documents and NEPM 2013.

Criteria:

NEPM EILs/HIL and HSL-A (clean fill) and HIL and HSL-D (commercial / industrial land uses).

Findings:

All eight metals analysed for the six samples submitted returned results below the adopted clean fill criteria. All organochlorine pesticide compounds analysed in the single sample submitted for analysis returned results below the laboratory limit of reporting and thereby, below the adopted clean fill criteria. No visual signs of discolouration or inclusions of waste materials nor olfactory detections of odours were noted during drilling of the three bores.

Conclusions and Recommendations:

Based on the observations of the soil materials beneath the site, the results of the limited analysis undertaken with all results returning concentrations of contaminants analysed below HIL A and EIL (and therefore HIL-D) criteria as well as the presence of a substantial concrete slab across most of the site, it was concluded that the site is suitable for commercial land use.

Suggested Action:

It was noted that the scope of analysis and the selection of analytes was limited, however, with a proposed commercial/industrial land use and the presence of the concrete slab as a barrier between site users and the underlying soil providing a reasonable buffer to ensure the protection of human health, the work was sufficient. If any soils are excavated on the site or if the concrete slab is to be removed, further investigation and a wider range of analyses should be undertaken.

Test locations within Lot 1201 on SP160055 are shown on Drawing No. 2A Rev A.

Lot 1202 on SP160055

Letter report produced by Robin Wagland of MACH1 Environmental Contaminated Land Auditor Interim Certification Advice Letter, 257 Macarthur Avenue, Hamilton (Lot 1202 on SP160055) Dated 2 June 2017

The letter report refers to EM&R Contaminated Land Investigation Document (CLID) *Site Investigation Report for Lot 1202 SP160055, 257 Macarthur Avenue, Northshore Hamilton* Dated 9 April 2017. This report was not provided to Butler Partners for review.

The conclusions presented by EM&R are summarised by Mr Wagland as follows:

The subsurface soil investigation carried out by EM&R included:

- 10m linear spacing of boreholes along the former BP oil pipeline corridor which consisted of seven bores (SB10 to SB16);
- within a 35m by 35m grid across the site which consisted of 20 boreholes (SB16 to SB35);
- within an area of ash fill (SB36);
- targeted sampling along stormwater drains (SB16, SB19, SB24, SB27, SB28, SB34, SB37 and SB38); and
- targeted sampling near a transformer (SB39 and off-site surface sample SS01).

The grid sampling of twenty boreholes did not meet the AS/NZS4482.1 - 2005 minimum number of boreholes which was thirty-five for an area of 2.435ha. The combined approach of targeting boreholes within high risk areas and a broad 35m by 35m grid was in accordance with AS/NZS4482.1 - 2005 requirements based on site history which indicated that most the site was a low risk of being contaminated.

There were three primary types of fill observed that included ash, grey or brown clays or red clays, none of which contained heavy metals or PAHs that exceeded the investigation levels and PID readings indicated TRH/BTEXN were not present. Limited screening for pesticides also showed that these fill materials did not contain concentrations above the limits of reporting.

The TRH/BTEXN and PAH results and PID field readings indicated that the former BP oil pipeline did not impact the surrounding soil.

TRH concentrations were recorded above the investigation levels (vapour intrusion) for F1 and F2 fractions at SB35 located in the southeast corner of the site. Further delineation based on SB02B, and SB35A to SB35M indicated that:

- the TRHs were present within the smear zone that was at 3.8-4.0 metres below ground surface (mbgs);
- the TRHs likely originated from petroleum fuel;
- one or more stormwater drains that were in this area were likely used to dispose of petroleum wastes; and
- the approximate volume of soil impacted by F1 and F2 concentrations was 1,170m³ (bulk).

Groundwater was present at ~3mbgs to 4mbgs across the site and the flow direction appeared to be toward Brisbane River. Sampling of groundwater at wells MW2, MW8 and MW9 did not indicate there were TRH/BTEXN, PAH or heavy metal concentrations that would pose a risk of vapour intrusion into future buildings or to the aquatic life within Brisbane River.

The groundwater concentration within the TRH smear zone was not investigated, however, no sheen or separate phase hydrocarbons were observed at the adjacent shoreline which suggested that gross contamination of Brisbane River was unlikely to be occurring.

The groundwater exhibited a relatively high salinity at MW9 based on EC values that ranged from 10,160 μ S/cm to 10,620 μ S/cm. This was a natural quality of the groundwater that precludes its use. The groundwater at MW2 and MW8 was less saline with EC values ranging from 1,114 μ S/cm to 5,703 μ S/cm, however, the yields were <1L/second which would likely deter its use.

Based on the soil and groundwater analytical results, hazardous contaminants were not identified on site except TRHs in soil near the south-eastern corner. Accordingly, the TRH concentrations resulted in Lot 1202 SP160055 being prescribed contaminated land. The extent of TRH was delineated and the concentrations represented potential health and environmental risks, however, these risks were considered minimal if these soils were not disturbed. The environmental values associated with Brisbane River were not believed to be compromised as long as the TRH-impacted soil was not exposed.

Lot 1202 SP160055 will remain listed on the EMR. The following site suitability statement was made by EM&R in their Site Investigation Report:

The land described as Lot 1202 SP160055 is contaminated by TRH affecting soil. The land is suitable for the following specified use(s) including associated activities:

- car parking;
- bulk storage; and
- site office (e.g. demountable office used by developer).

The suitability of the land for the stated uses does not warrant the implementation of a site management plan to manage TRH contamination if the affected area is left undisturbed.

Lot 1302 on SP195300

Letter report produced by Robin Wagland of MACH1 Environmental Contaminated Land Auditor Interim Certification Advice Letter, 281 Macarthur Avenue, Hamilton (Lot 1302 on SP195300) Dated 2 June 2017.

Referenced investigation report: EM&R Site Investigation Report for Lot 1302 SP195300, 281 Macarthur Avenue, Northshore Hamilton Draft Report dated 24 March 2017.

The conclusions presented by EM&R are summarised by Mr Wagland as follows:

The site investigation and reporting was conducted in accordance with NEPM 2013 guidelines, with the exception that no formal Sampling and Analysis Quality Plan, Data Quality Objectives or Data Quality Indicators were developed prior to conducting field work. These documents are followed at the commencement of the investigation as their content generally applies to sites undergoing detailed site investigation. The absence of formal documented plans should not affect the quality of the work performed or change the outcome of the results and conclusions.

Quality Assurance (QA) sampling results and subsequent laboratory data validation indicated that EM&R could rely on the analytical data in the preparation of this report.

The notifiable activity of petroleum product or oil storage, which listed the site on the Environmental Management Register (EMR), occurred on former Lot 1164 SP108460. The notifiable activity was ASTs storing diesel and kerosene. The ASTs were located approximately 110m east of the site and were removed and the surrounding soil validated in approximately 2008 (WP, 2008). Macarthur Avenue and a park were subsequently constructed in this area. EM&R believed the hydrocarbon contamination that was remediated would not impact on-site soils based on the separation distance of 110m and the validation of the remedial excavations. No groundwater investigations were carried as part of the validation work.

The former on-site BP oil pipeline (containing primarily diesel) was potentially a notifiable activity under the category of petroleum or petrochemical industries. BP removed the pipeline in 2012. Soil investigations conducted by GHD Pty Ltd (GHD) prior to removal, indicated there was a low risk that soil contamination was present. It was not believed BP undertook further investigations or remedial work after the pipes were removed.

Past history showed that there were no other notifiable activities carried out based on site use. The site use was bulk cargo storage and a car park and these activities posed a low risk of contaminating the site. The risk of contamination from off-site sources was also low as this same use occurred on the adjacent lot to the west and car storage occurred to the east.

Site history and past site investigations carried out within the greater area of Northshore Hamilton indicated the area was filled with dredged material and chemical analyses showed that this material was not likely to be a source of contamination.

The subsurface soil investigation carried out by EM&R and Douglas Partners Pty Ltd (DP) included a broad grid across the site and targeted sampling along the former BP pipeline and within areas of identified contamination. The combined investigation did not meet AS/NZS4482.1 - 2005 minimum number of boreholes as the majority of boreholes were not placed within a grid as recommended by this standard. The combined investigations consisted of twenty-nine boreholes which was considered an appropriate sampling regime based on:

- the knowledge that the expected underlying fill would consist of dredged material and natural sands which would be consistent in appearance and chemical concentration, which were not sources of contamination;
- past site use did not involve built structures or activities that would result in contamination on site; and
- the former BP oil pipeline was the most likely source of contamination and the site investigations were therefore more biased toward this area.

There were two primary types of fill observed that included ash and clays, neither contained heavy metals or Polycyclic Aromatic Hydrocarbons (PAHs) that exceeded the investigation levels. There were also no indications of hydrocarbon contamination in soil along the pipeline corridor except at the southern-most end where TRHs were recorded at and just above the depth to groundwater. This occurred at SB02 and MW7 and at depths that were 2.8mbgs to 3.0mbgs. The TRHs appeared to be within a smear zone that was <0.5m thick. The area was delineated and the approximate volume of soil contamination was estimated to be 156m³ (bulked).

DP drilled nine boreholes across the site and analysed samples for heavy metals, TRH/benzene, toluene, ethylbenzene and xylenes (BTEXN), PAHs, polychlorinated biphenyls (PCBs) and pesticides. There was one exceedance of the investigation level for zinc (355mg/kg vs 330mg/kg), one exceedance for chromium (282mg/kg vs 200mg/kg) and one exceedance for endrin (18.1mg/kg vs 10mg/kg). Further investigation by EM&R showed that these were isolated instances that did not indicate a hazardous contaminant was present. These concentrations could remain in place without compromising surrounding environmental values.

The TRH/BTEXN and PAH results and Photo-Ionisation Detector (PID) field readings indicated that the former BP oil pipeline did not impact the surrounding soil, except for the southern end, stormwater drains were not migration pathways and the ash fill that was encountered was not contaminated by TRH/BTEXN or PAHs. The DP site investigation also confirmed that the balance of the site was not impacted by TRH/BTEXN or PAHs.

EM&R and DP undertook groundwater investigations that included the surrounding area. DP installed four on-site wells (MW1 to MW4) and EM&R installed four on-site wells (MW5 to MW7 and MW10) and one off-site well (MW9). Two existing wells, MW3A and MW8, were also included in EM&R's investigation, which were located ~160m and ~180m from the site.

Groundwater was present at ~3mbgs to 4mbgs and the flow direction appeared to be towards the Brisbane River. DP completed one groundwater monitoring event that included MW1 to MW4, and EM&R completed two events. The first included MW1 to MW9 and MW3A and the second included MW1 to MW10. EM&R also conducted an interim monitoring event that targeted MW10 just after it was installed and also included samples at MW5 for comparison. The groundwater monitoring results indicated the following:

Initial monitoring by DP indicated that the sample collected from MW4 was the most contaminated with TRHs, however, the concentrations did not exceed Groundwater Investigation Levels (GILs). These concentrations were TRH F1 - <20µg/L, TRH F2 - 510µg/L, TRH F3 - 4,110µg/L and TRH F4 – 510µg/L. BTEXN and PAHs were not detected.

Subsequent monitoring by EM&R showed that MW4 TRH concentrations dropped to non-detectable levels. Results at MW5 and MW7 were the most elevated, however, upon further monitoring these also dropped to levels that were marginally above the limits of reporting. BTEXN and PAHs were not detected.

Due to its saline nature, the groundwater has no realistic beneficial use now or in the future.

A possible explanation for the decrease in TRH concentrations in groundwater could be that the TRH plume was partially removed during the purging of these wells, and therefore, minor in nature and not expected to be persistent. This could also apply to the TRH source which did not appear to have adversely impacted the site. If remediation is undertaken to remove the source at SB02 and MW7, then it would be expected that surrounding groundwater concentrations would further diminish with time.

Based on the soil and groundwater analytical results reported by DP, EM&R and GHD, hazardous contaminants were not identified on site except TRHs in soil near the southern-most end of the former BP oil pipelines. Accordingly, the TRH concentrations result in Lot 1302 SP195300 being prescribed contaminated land. The extent of TRH was delineated and the concentrations represented potential health and environmental risks, however, these risks were considered minimal if these soils were not disturbed. The environmental values associated with Brisbane River were not believed to be compromised as long as the TRH-impacted soil was not exposed.

Lot 1302 SP195300 will remain listed on the EMR.

The land is considered to be prescribed contaminated land.

The land described as Lot 1302 [Note: letter references Lot 1202 in error] SP160055 is contaminated by TRH affecting soil. The land is suitable for the following specified use(s) including associated activities:

- car parking;
- bulk storage; and
- site office (e.g. demountable office used by developer).

The suitability of the land for the stated uses does not warrant the implementation of a site management plan to manage TRH contamination if the affected area is left undisturbed.

5.0 SUMMARY OF CONTAMINATED LAND POSITION FOR THE HAMILTON NORTHSORE – WATERFRONT PRECINCT

Contaminated land information for the wider area of the Hamilton Northshore – Waterfront Precinct is sparse, however, based on the data available and the widespread hardstand surfacing across the site, it is considered that, provided the capping is not disturbed, the area is generally suitable for commercial/industrial land uses and public open space. If permanent, enclosed structures are proposed, an assessment of hydrocarbon contamination potential in the soil within the structure's footprint should be undertaken and potential risk of vapour intrusion to the specific structure assessed. Temporary, open structures such as large marquees would be exempt from this requirement. If the surface capping and underlying soil is to be disturbed as part of any proposed land use, an assessment of the disturbed soil must be undertaken.

The current Waterfront Precinct land uses as described earlier in this report are considered to be suitably managed to ensure protection of the users of the site.

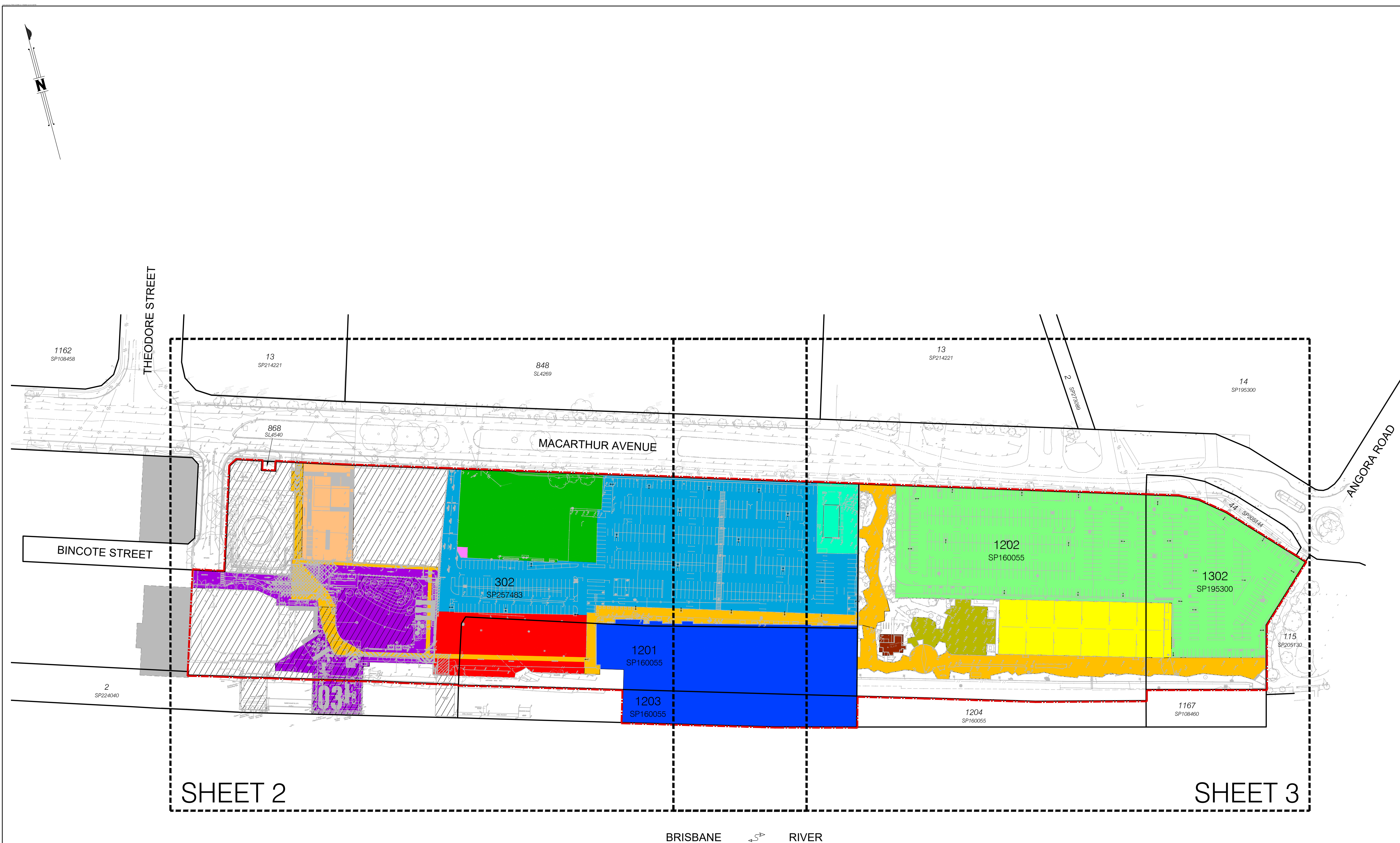
Yours faithfully

BUTLER PARTNERS PTY LTD

SUZANNE WALKER

Principal

Enc: Current Masterplan, Drawing No. 1 Rev A; Drawing No. 2A Rev A, Drawing No. 2B Rev A, EMR CLR Search Results



SHEET 3

BRISBANE RIVER

NOTE: ALL DIMENSIONS AND AREAS ON THIS PLAN ARE SUBJECT TO SURVEY AND REQUIREMENTS FOR LODGEMENT OF SURVEY PLANS IN THE DEPARTMENT OF RESOURCES

ECONOMIC
DEVELOPMENT
QUEENSLAND

LAND USE PLAN

(MACARTHUR AVENUE, HAMILTON)

PART LOT 302 ON SP257483, LOTS
1201-1203 ON SP160055 & LOT 1302 ON
SP195300

BRISBANE CITY COUNCIL

(i) This plan was prepared for the exclusive use of ECONOMIC DEVELOPMENT QUEENSLAND and is not to be used by any other person or corporation without the express consent of LandPartners.

(ii) Detail shown in grey has been taken from LandPartners Pty Ltd detail plans:

- BRMM7695-000-10-2 dated January 2020
- BRMM7695-000-62-1 dated May 2020
- BRMM7695-000-4-3 dated February 2020
- BRMM7695-000-92-1 dated September 2020
- BRMM7695-000-67-1 dated June 2020
- BRMM7695-000-129-1 dated March 2020

and, 'General Arrangement Plan' Project 013792 Dwg No.
L 0501 Rev F dated February 2021.

(iii) This plan may not be copied unless these notes are included

(iv) LandPartners Pty Ltd accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this plan in contravention of the terms of this clause or clauses (i), (ii) or (iii) hereof.

	Site Boundary		Carpark 1**
	Blackyard Shed		Carpark 2**
	Blackyard Workshops	** Pop-up events site subject to not exceeding precinct car parking capacity at peak times.	
	The Deck		
	Eat Street Northshore		Tennis Australia /outdoor sport and rec
	Blackyard Spaces		
	Maritime Pop Up Park		
	Flip Side (DEV2020/1150)		
	Riverwalk and pedestrian pathways		
	The Lawn		
	Common Refuse Hub		
	Adjoining old port warehouses		
	Activation/Events Site		



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Milton Qld 4064

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f: (07) 3842 10
e: info@landpartners.com.
w: www.landpartners.com.



LEVEL DATUM

LEVEL ORIGIN

CONTOUR INTERVAL

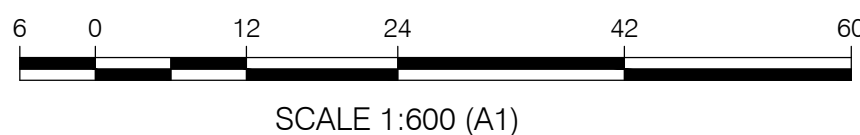
DRAWN	TEL	DATE	30/06/2021
CHECKED	MLM	DATE	30/06/2021
APPROVED	MLM	DATE	30/06/2021

UDN
BRMM7695-000-147-5

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BRISBANE RIVER



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CLIENT

ECONOMIC
DEVELOPMENT
QUEENSLAND

PROJECT

LAND USE PLAN
(MACARTHUR AVENUE, HAMILTON)

REAL PROPERTY DESCRIPTION

PART LOT 302 ON SP257483, LOTS
1201-1203 ON SP160055 & LOT 1302 ON
SP195300

LOCAL AUTHORITY

BRISBANE CITY COUNCIL

NOTES

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LEGEND

Site Boundary

Blockyard Shed

Blockyard Workshops

The Deck

Eat Street Northshore

Blockyard Spaces

Maritime Pop Up Park

Flip Side (DEV2020/1150)

Riverwalk and pedestrian pathways

The Lawn

Common Refuse Hub

Adjoining old port warehouses

Activation/Events Site

Carpark 1**

Carpark 2**

** Pop-up events site subject to not exceeding precinct car parking capacity at peak times.

Tennis Australia /outdoor sport and rec

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surveyors and planners

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w: www.landpartners.com.au

ISO 9001
Quality Management
System Certified

LEVEL DATUM

-

LEVEL ORIGIN

-

CONTOUR INTERVAL

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DRAWN

TEL

DATE

30/06/2021

CHECKED

MLM

DATE

30/06/2021

APPROVED

MLM

DATE

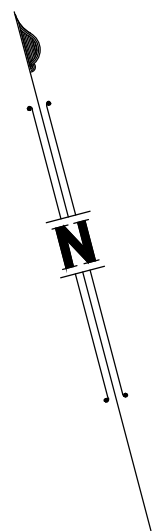
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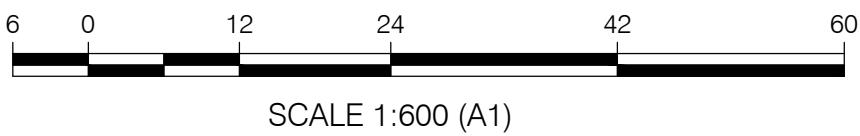
BRMM7695-000-147-5

SHEET 2 OF 3

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BRISBANE RIVER



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CLIENT

ECONOMIC
DEVELOPMENT
QUEENSLAND

PROJECT

LAND USE PLAN
(MACARTHUR AVENUE, HAMILTON)

REAL PROPERTY DESCRIPTION

PART LOT 302 ON SP257483, LOTS
1201-1203 ON SP160055 & LOT 1302 ON
SP195300

LOCAL AUTHORITY

BRISBANE CITY COUNCIL

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LEGEND

Site Boundary

Blockyard Shed

Blockyard Workshops

The Deck

Eat Street Northshore

Blockyard Spaces

Maritime Pop Up Park

Flip Side (DEV2020/1150)

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Adjoining old port warehouses

Activation/Events Site

Carpark 1**

Carpark 2**

** Pop-up events site subject to not exceeding precinct car parking capacity at peak times.

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w: www.landpartners.com.au

ISO 9001
Quality Management

LEVEL DATUM

-

LEVEL ORIGIN

-

CONTOUR INTERVAL

-

DRAWN

TEL

DATE

30/06/2021

CHECKED

MLM

DATE

30/06/2021

APPROVED

MLM

DATE

30/06/2021

UDN

BRMM7695-000-147-5

SHEET 3 OF 3

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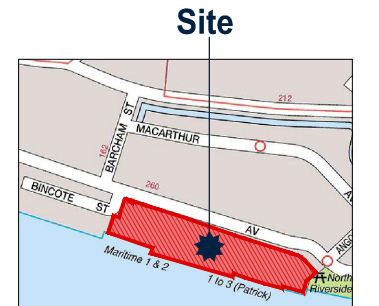
DRAFT



Butler Partners
geotechnical • geo-environmental • groundwater



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UBD Reference: Map 141 Grid C19-D19-D20 (ACS,v8) nts

Broadscale Contamination Assessment Northshore Hamilton - Waterfront Precinct

Hamilton Northshore, Macarthur Avenue, Hamilton

Site Locality Plan

Economic Development Queensland

CLIENT:

SCALE AT A3:

AS SHOWN

DATE: AUGUST 2021

DRAWN: LA

APPROVED:

PROJECT No: 018-150C

DRAWING No: 1 REV: A



STANDARD MAP NUMBER
9543-33244

HORIZONTAL DATUM: GDA94 ZONE: 56 SCALE 1 : 10000

MAP WINDOW POSITION &
NEAREST LOCATION



SUBJECT PARCEL DESCRIPTION

DCDB	302/SP257483
Lot/Plan	9.078ha
Area/Volume	FREEHOLD
Tenure	BRISBANE CITY
Local Government	HAMILTON
Locality	18513/437
Segment/Parcel	

CLIENT SERVICE STANDARDS

PRINTED 19/08/2021

DCDB 18/08/2021

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Queensland
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LEGEND

Development Area

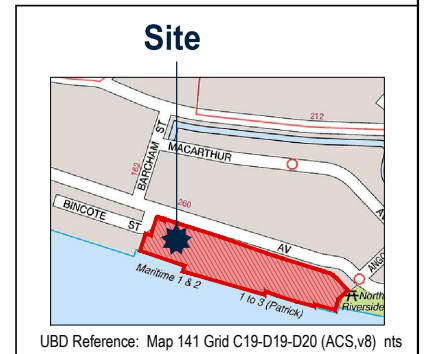
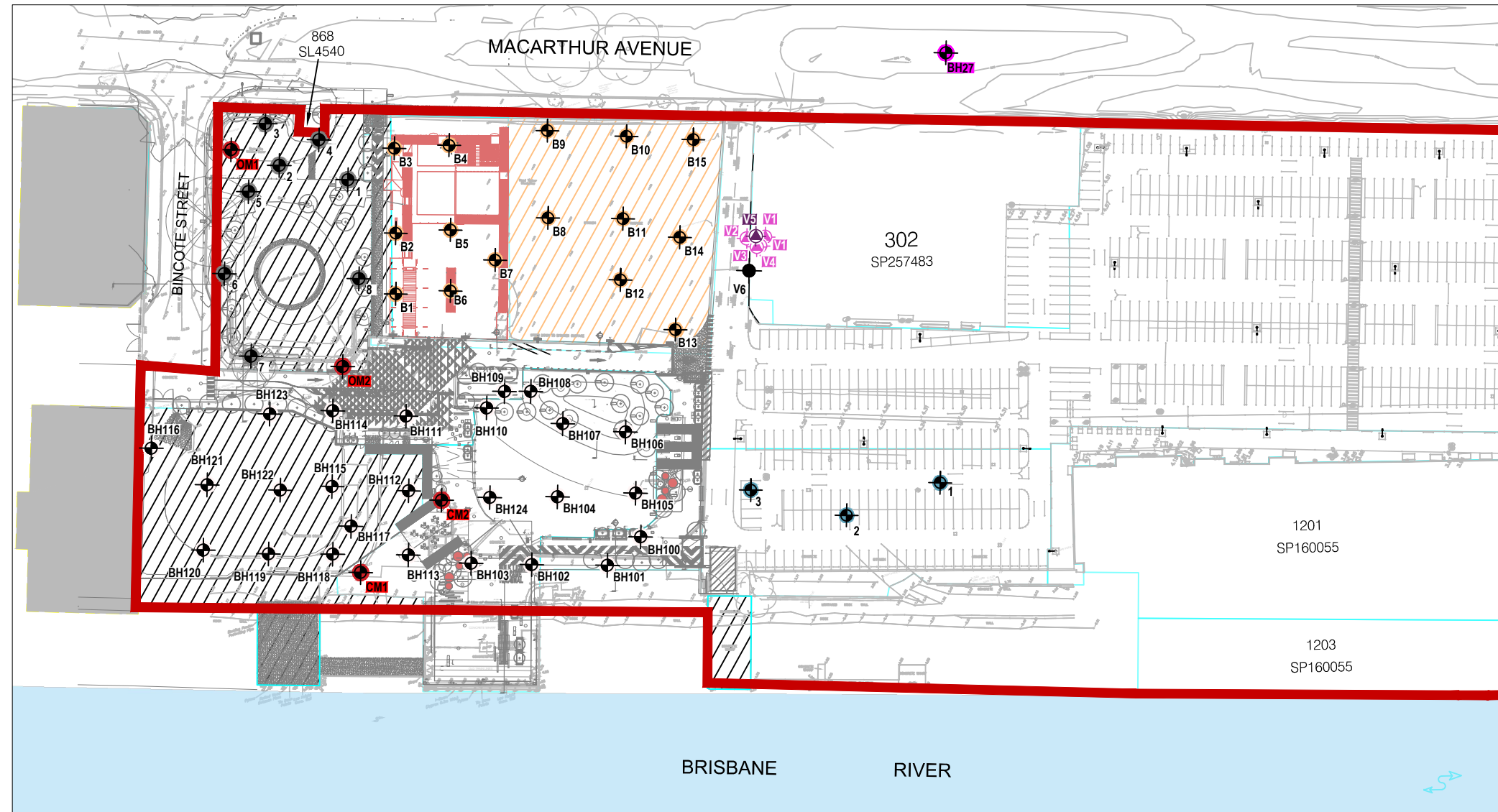




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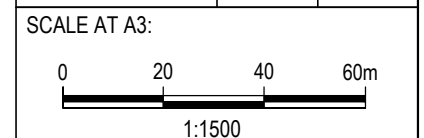


**Broadscale Contamination Assessment
Northshore Hamilton - Waterfront Precinct**

Hamilton Northshore, Macarthur Avenue, Hamilton

Site Locality Plan and Existing Test Locations

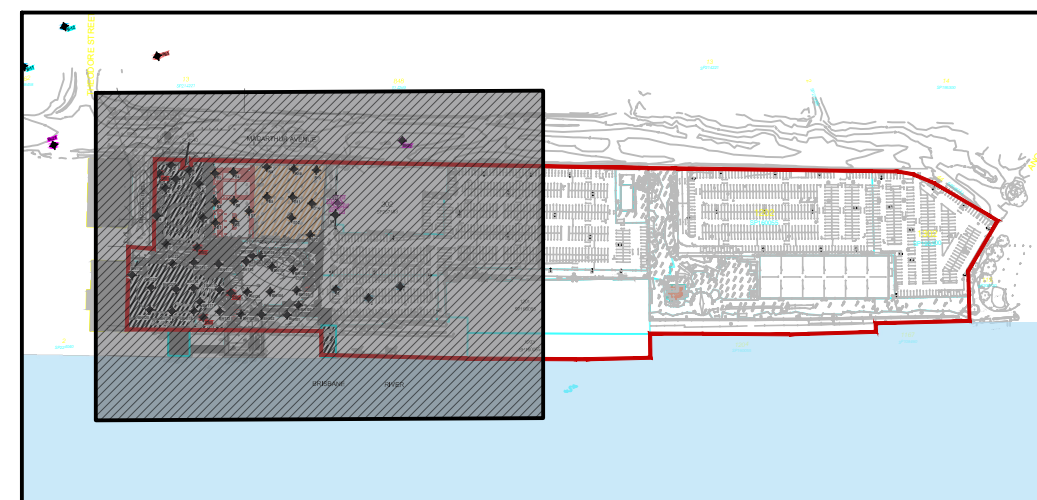
CLIENT: **Economic Development Queensland**



DATE: AUGUST 2021
DRAWN: LA
APPROVED:
PROJECT No: 018-150C
DRAWING No: **2A** REV: **A**

LEGEND

- | | |
|---|--|
| CCA1 Borehole - Parsons Brinkerhoff (December 2003) | B1 Borehole - Butler Partners (June 2020) |
| V6 Stockpile - Butler Partners (June 2006) | 1 Borehole - Butler Partners (June 2021) |
| BH100 Borehole - Butler Partners (June 2016) | V5 Pit Base Sample - Butler Partners (June 2006) |
| 1 Borehole - Butler Partners (June 2012) | V1 Pit Wall Sample - Butler Partners (June 2006) |
| BH1 Borehole - Soil Surveys (February 2008) | V6 Stockpile - Butler Partners (June 2006) |
| Development Area | |



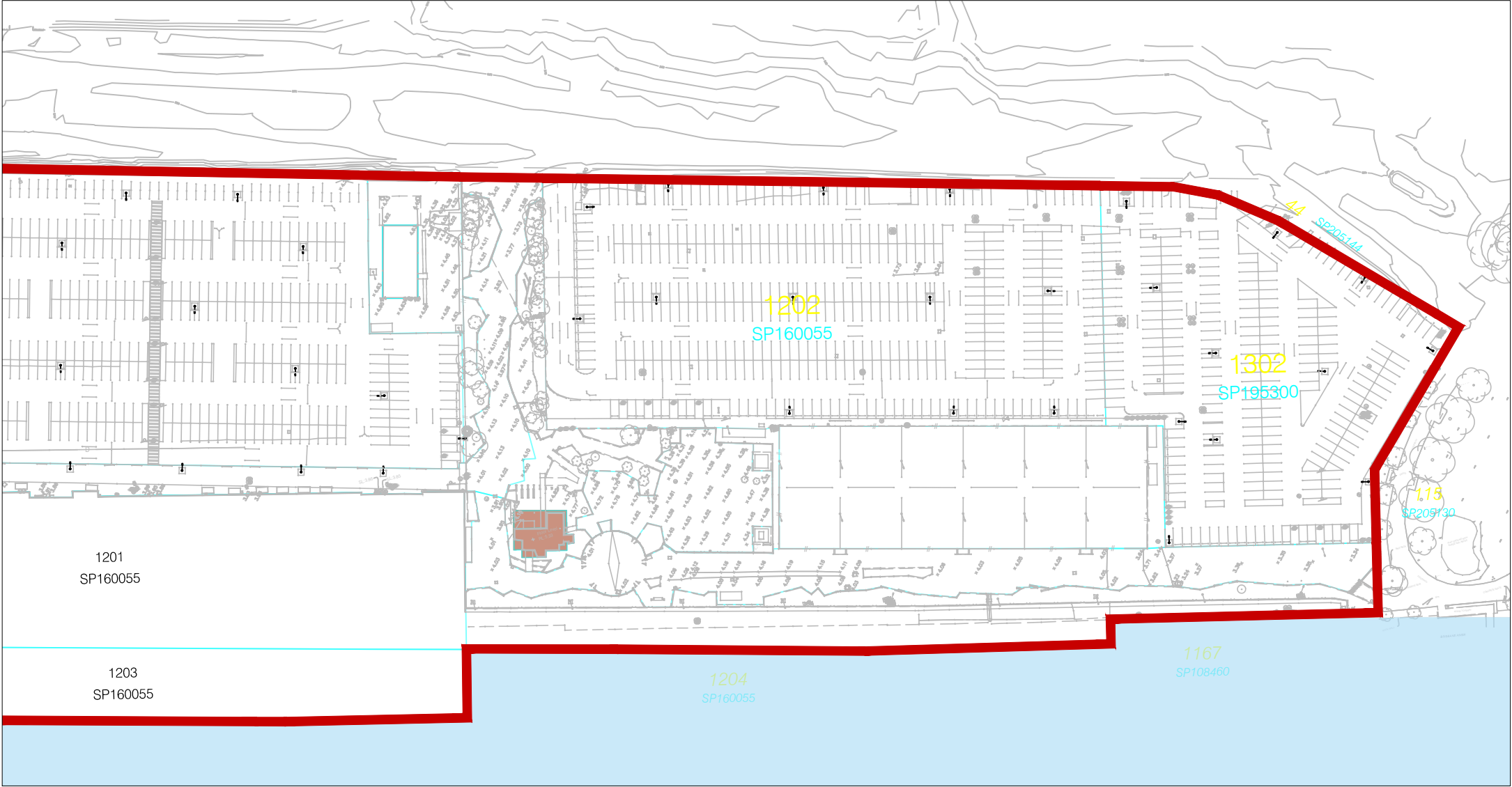
KEY MAP
Not to Scale



DRAFT

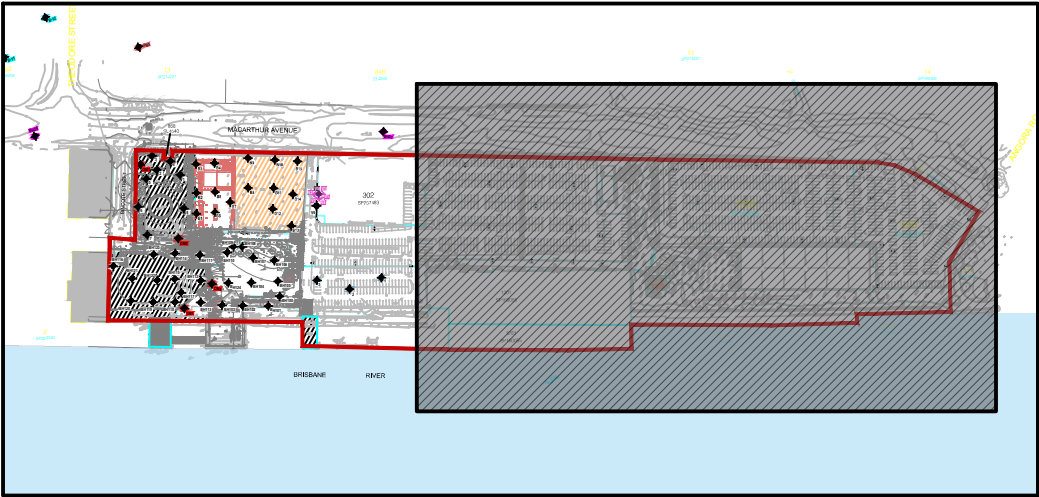


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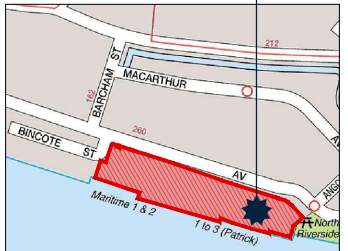
LEGEND

Development Area



KEY MAP
Not to Scale

Site



UBD Reference: Map 141 Grid C19-D19-D20 (ACS,v8) nts

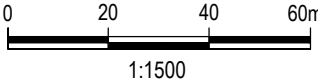
**Broadscale Contamination Assessment
Northshore Hamilton - Waterfront Precinct**

Hamilton Northshore, Macarthur Avenue, Hamilton

Site Locality Plan and Existing Test Locations

CLIENT:
Economic Development Queensland

SCALE AT A3:



DATE: AUGUST 2021

DRAWN: LA

APPROVED:

PROJECT No: 018-150C

DRAWING No: 2B REV: A



Department of Environment and Science (DES)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50520219 EMR Site Id: 133052 21 March 2019
This response relates to a search request received for the site:
Lot: 302 Plan: SP257483

SEARCH RESULT

The site you have searched is a lot resulting from the amalgamation of the following sites, which are included on the Environmental Management Register (EMR) or the Contaminated Land Register (CLR), as indicated below. Further details for these sites are available by contacting this Agency via email: emr.clr.registry@des.qld.gov.au

Lot	Plan
783	SL4449 EMR
1005	SL6739 EMR
859	SL4540 EMR

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated. The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DES has not been notified

If you have any queries in relation to this search please phone 13QGOV (13 74 68)

Administering Authority



Department of Environment and Science (DES)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50536631 EMR Site Id: 13 June 2019
This response relates to a search request received for the site:
Lot: 1201 Plan: SP160055

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
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SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50536633 EMR Site Id: 87683 13 June 2019
This response relates to a search request received for the site:
Lot: 1202 Plan: SP160055

EMR RESULT

The above site IS included on the Environmental Management Register.

The site you have searched has been subdivided from the following site, which IS included on the EMR or the CLR.

Lot: 877 Plan: SL4641
Address: 221 MACARTHUR AVENUE
EAGLE FARM QLD 4007

The site has been subject to the following Notifiable Activity or Hazardous Contaminant.

PETROLEUM PRODUCT OR OIL STORAGE - storing petroleum products or oil -

(a) in underground tanks with more than 200L capacity; or

(b) in above ground tanks with -

(i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code - more than 2, 500L capacity; or

(ii) for petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code - more than 5, 000L capacity; or

(iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia - more than 25, 000L capacity.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DES has not been notified

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GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50712299 EMR Site Id: 87686 19 August 2021
This response relates to a search request received for the site:
Lot: 1203 Plan: SP160055

EMR RESULT

The above site IS included on the Environmental Management Register.

The site you have searched has been subdivided from the following site, which IS included on the EMR or the CLR.

Lot: 622 Plan: SL2819
Address: 221 MACARTHUR AVENUE
EAGLE FARM QLD 4007

The site has been subject to the following Notifiable Activity or Hazardous Contaminant.

PETROLEUM PRODUCT OR OIL STORAGE - storing petroleum products or oil -

(a) in underground tanks with more than 200L capacity; or

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(i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code - more than 2, 500L capacity; or

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(iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia - more than 25, 000L capacity.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

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Administering Authority



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www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50536636 EMR Site Id: 70386 13 June 2019
This response relates to a search request received for the site:
Lot: 1302 Plan: SP195300

EMR RESULT

The above site IS included on the Environmental Management Register.

The site you have searched has been subdivided from the following site, which IS included on the EMR or the CLR.

Lot: 1164 Plan: SP108460
Address: 279 MACARTHUR AVENUE
EAGLE FARM 4009

The site has been subject to the following Notifiable Activity or Hazardous Contaminant.

PETROLEUM PRODUCT OR OIL STORAGE - storing petroleum products or oil -

(a) in underground tanks with more than 200L capacity; or

(b) in above ground tanks with -

(i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code - more than 2, 500L capacity; or

(ii) for petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code - more than 5, 000L capacity; or

(iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia - more than 25, 000L capacity.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DES has not been notified

If you have any queries in relation to this search please phone 13QGOV (13 74 68)

Administering Authority