



APPENDIX B

Materials and Method



MATERIALS AND METHOD

The following tasks were undertaken to support this land assessment study:

- A high level review was undertaken to identify potential land contamination issues within the Employment Precinct. Key information identified during the review as well as supporting tables and text are provided in appendices. Potential land contamination within the Employment Precinct, both current and historic, have been evaluated based on the data gathered from the following sources of information:
 - High level review of the environmental setting of the Employment Precinct.
 - High level review of the readily available Environmental Audit reports for completed Statutory Environmental Audit sites within and in the vicinity of the Employment Precinct, and additional publicly available environmental assessment reports.
 - High level geological and geotechnical review of the Employment Precinct.
 - Review of selected historical public historical records, photos, maps and aerial photographs.
 - Review of Golder's general records on ground conditions.
 - National Pollution Inventory data for industries within the Employment Precinct.
 - Review of published archives, databases and online historic information.
 - Energy Safe Victoria database of registered cathodic protection systems to gain an understanding of the potential number and location of USTs that may be present across the Precincts.
- Development of a land contamination risk ranking to assess the likelihood and significance of the remediation required to achieve identified land uses (i) Sensitive Educational Use (School / Kindergarten), ii) Recreational Open space (parks) and iii) Commercial / Industrial. The degree of potential land contamination was divided into the four broad and subjective contamination risk categories (High, Medium, Low or Not Applicable (NA)).
- Overview of approaches for contamination management and remediation strategies to support site and precinct development.

Note on figures and models within the main report:

Figures and model presented within the main report were processed using the R statistical environment version 3.3.1 (*R Core Team (2016). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>*).

The following packages were extensively used:

- *ggplot2* - *H. Wickham. ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag New York, 2009*
- *rgeos* - *Roger Bivand and Colin Rundel (2016). rgeos: Interface to Geometry Engine - Open Source (GEOS). R package version 0.3-19. <https://CRAN.R-project.org/package=rgeos>*
- *dplyr* - *Hadley Wickham and Romain Francois (2015). dplyr: A Grammar of Data Manipulation. R package version 0.4.3. <https://CRAN.R-project.org/package=dplyr>*



APPENDIX C

Environmental Setting

Appendix C1 - Geology and Geotechnical Review

Appendix C2 - Drainage and Hydrogeology

Appendix C3 - Acid Sulfate Soils



Employment Precinct

The Employment Precinct is situated within the Yarra Delta in an area of Quaternary aged (< 2 Million years old) sedimentation at the head of Port Phillip Bay. The Yarra Delta consists of several sub-horizontal geological formations, which were formed at the mouth of the Yarra River and together are known as the Yarra Delta Group. The Yarra Delta Group has infilled an ancient river valley which was cut into the underlying Tertiary and Silurian aged formations by the ancestral Yarra-Maribyrnong river system when sea levels were considerably lower than present (Neilson, 1996).

Geological Units

A review of the Melbourne 1:63,360 geological map (Figure A-2 in Appendix A) and accompanying sections published by the Geological Survey of Victoria (GSV, 1974) indicates the precinct is underlain by the following geological units from oldest to youngest:

- Older formations (ancient valley floor, Tertiary and Silurian aged):
 - Melbourne Formation (S_{ud}) – Siltstone interbedded with Sandstone.
 - Werribee Formation (T_w) – dense sand and hard clay in varying proportion of fluvial origin.
 - Tertiary Older Volcanics (T_{ov}) – typically weathered, closely jointed basalt flows interbedded with pyroclastic deposits such as tuffs.
 - Brighton Group (T_b) – dense to very dense sands and hard clays in varying proportion of fluvial and shallow marine origin.
- Yarra Delta Group (filled ancient valley, Quaternary aged):
 - Moray Street Gravels (Q_m) – dense to very dense sands with some gravel of fluvial origin.
 - Fishermens Bend Silt (Q_f) – firm to stiff, weathered, silty clays of marine origin.
 - Coode Island Silt (Q_c) – soft to firm highly compressible clay or silty clay with occasional sand lenses. Organic rich and known to contain gas pockets within the unit.
 - Port Melbourne Sand (Q_p) – loose to medium dense clean sands of marine origin.
- Fill – highly variable properties which typically contains varying proportions of waste materials.

The near surface stratigraphy for the Employment Precinct is anticipated to consist of the Port Melbourne Sand as indicated on the Melbourne map sheet, capped by a layer of fill over much of the area. The surface and sub-surface distribution of the Yarra Delta Group deposits beneath the fill is anticipated to be variable and relatively complex over the Employment Precinct. Neilson (1996) has attempted to map each of these units using historical borehole information, as outcrops of these units are limited. The Silurian aged Melbourne Formation forms the bedrock beneath the Employment Precinct, with overlying alluvial and volcanic deposits placed in the Tertiary age, then eroded to form the ancient Yarra-Maribyrnong river valley. Relevant sections from this paper are included in this appendix (Figure A-3 and Figure A-4 in Appendix A).

The topography of the ancient river valley in which the Yarra Delta Group was deposited had considerable influence on the distribution of the oldest formation of the group (the Moray Street Gravels), which is confined to the lower levels of this landscape and is thickest where depressions in the landscape were the deepest. The thicknesses of the overlying units (the Fishermens Bend Silt and Coode Island Silt) were also subsequently influenced by this buried topography.



Future Geotechnical Implications for Development

Based on our current understanding of the geology of the Employment Precinct, the key geotechnical issues and constraints which will need to be considered in the master planning process are as follows:

- The variable strength, quality and thickness of the fill soils.
- The generally low strength near surface soils.
- The considerable depth to suitable founding strata for piles over much of the precinct.
- The potential for significant differential settlement caused by the ongoing natural and development-induced secondary consolidation of the Coode Island Silt.
- Differential settlement impacting the connection between underground services and piled buildings.
- Differential settlement of services and the subsequent need to allow generous falls for gravity flow structures.
- The potential to trigger consolidation of the Coode Island Silt if the groundwater table is lowered during the construction of basement excavations or deep utility trenches.
- The potential for gas build up in basement excavations within the Coode Island Silt.

Given the above constraints, suitable foundation solutions for the proposed mixed use developments are likely to be as follows:

- Shallow spread footings or raft foundations for settlement tolerant buildings ranging in height from one to two storeys.
- Piled foundations for all non-settlement structures. Note that piled foundations may be required for single or two level buildings depending on a particular structure's tolerance for differential settlement.
- Constructing shallow basements for parking or avoiding basement construction by placing parking levels above ground.

A major geotechnical risk associated with low rise structures on the Coode Island Silt is ongoing creep settlement caused by secondary consolidation. This occurs in the absence of development and can be exacerbated by development. While stand alone, settlement tolerant low rise buildings of small plan dimensions such as 15 m x 15 m, supported on appropriately designed raft slabs may perform satisfactorily, this may not be the case for structures which are not settlement tolerant and/or are of larger plan dimensions. This is due to differential settlement potentially resulting in tilt and cracking of buildings, as well as rupture of services.

The key geotechnical issues that will need to be addressed for shallow footings are:

- Allowable bearing pressures.
- Allowable total and differential settlement, including long term creep settlement.
- Shrinkage/swelling potential.
- Soil aggressivity towards buried concrete and steel.
- Generally shallow depth to groundwater.

For road pavement constructions, the key geotechnical issues will be the strength, moisture condition and reactivity of the sub-grade materials, as well as the potential for long term creep settlement, which could impact cross falls and required service gradients beneath the pavements.

Targeted site specific investigations are recommended to better define each of these issues once development plans have been prepared for relevant areas.



APPENDIX C1 HIGH LEVEL GEOTECHNICAL REVIEW

References

Neilson, J.L. (1996). The Geological Setting of the Coode Island Silt, Building on Coode Island Silt. Australian Geomechanics Society and the Structural Branch Seminar held on 10 April 1996, 20 pages.

Geological Survey of Victoria (1974). 1:63,360 Geological Mapsheet of Melbourne, Geological Survey of Victoria (GSV).

\\golder.gds\gap\melbourne\jobs\env\2016\1654703 - delwp psi fishermens bend\correspondence out\1654703-001-r-precinct_report\rev0\appendix c1 - geology and geotechnical\app c1 geotechnical review.docx



TOPOGRAPHY AND DRAINAGE

The Employment Precinct is situated within the Yarra Delta in an area of Quaternary aged sedimentation at the head of Port Phillip Bay. The Yarra Delta consists of several flat lying geological formations, which were formed at the mouth of the Yarra River. The main discharge environments in the Employment Precinct are the:

- Yarra River is located along South Wharf, which borders the Employment Precinct to the north. The distance from Lorimer Street (the northern boundary of the Employment Precinct) to the Yarra varies from around 20 m to 100 m; and
- Port Phillip Bay located at its nearest point (from the southern extent of the Westgate Park) is approximately 800 m to the southeast to Webb Dock and 1 km to the south east to Perce White Reserve.

Within the Employment Precinct there are also a number of major man-made features which could affect local drainage and therefore groundwater flow. The filled quarries may provide a local point of enhanced groundwater recharge, however this depends on the type of capping and infilled materials. The former quarries and the trunk sewer may also provide a sink to groundwater if they extend below the groundwater table. Features which can influence groundwater include:

- several areas with deep fill (refer to Section 3.0 of the main report for details);
- the Hobson Bay Sewer Main, which falls westward under the Yarra River Based on information provided by South Eastern Water, and was constructed around -10 metres Australian Height Datum (mAHD) and below the groundwater table;
- the shallower network of storm water and sewer lines;
- permanent water features at the Westgate Park; and
- pervious and impervious surfaces across the area.

REGIONAL GROUNDWATER USE

Groundwater Levels

A review of publicly available Environmental Audit reports within and adjacent to the Employment Precinct indicates that water levels values range from approximately 1 to 3 metres below ground level (mbgl) (refer to Appendix D2 for a review of Audit reports).

Groundwater Quality

It is expected that groundwater quality, as measured by salinity (total dissolved solids (TDS)), will vary across the Employment Precinct depending on whether the observed groundwater is perched (i.e. its quality may be affected more by infiltrating rain water) or connected to the regional groundwater system (affected by the nearby estuarine system and Coode Island Silt where groundwater samples from Coode Island Silt and Moray Street Gravels have typically indicated TDS in excess of 30,000 mg/L).

A review of Environmental Audit reports within and adjacent to the Employment Precinct indicates that TDS values range from approximately 910 mg/L at the 770 Lorimer Street site (CARMS. No. 42748-2) up to 30,000 mg/L reported at the Salmon Street former landfill (CARMS. No. 38456-3).

A review of the DSE Water Table Aquifers Beneficial Use map series for South Western Victoria reports the groundwater in the area is likely to be classified as Segment B. Segment B groundwater is characterised by total dissolved solids (TDS) in the range of 1,001 mg/L to 3,500 mg/L. We consider this classification would apply to groundwater within the Port Melbourne Sands rather than Coode Island Silt. In accordance with the 'State Environmental Protection Policy (SEPP) for Groundwater of Victoria', dated 1999, the Beneficial Uses that must be protected, applicable to sites that are classified as Segment B include:



- Maintenance of ecosystems;
- Potable mineral water;
- Stock watering;
- Industrial water use;
- Primary contact recreation; and
- Buildings and structures.

Groundwater in the area can therefore be considered to be of moderate to high sensitivity with respect to potential groundwater contamination.

Regional Groundwater Use

A review of the DELWP Victorian Water Measurement Information System identified registered groundwater bores within the Employment Precinct. A figure with registered groundwater use and construction depths are attached to this appendix. In general, registered groundwater bores are used for monitoring purposes and likely associated with shallow groundwater investigation for groundwater contamination. Registered groundwater bore information was accessed through the Visualising Victoria's Groundwater portal (www.vvvg.com.au) (FedUni, 2015).

GEOLOGICAL AND HYDROSTRATIGRAPHIC UNITS

Table C2-1 below provides a summary of the main geological and hydrostratigraphic units identified in the Employment Precinct. The hydraulic characteristics of each unit and typical ranges of hydraulic conductivities are included from published literature (for details see Leonard, 1992) and from Golder's project experience within similar geological/hydrogeological settings and geological units. Beneath and around the Employment Precinct the Port Melbourne Sands are generally underlain by Coode Island Silt, Fishermens Bend Silt, Moray Street Gravels and Werribee Formation.



APPENDIX C2 SUPPORTING INFORMATION RELATING TO ENVIRONMENTAL SETTING

Table C2-1: Main Geological Units, Hydrostratigraphic Units and Their Characteristics

Geological Unit	Description	Hydrogeological Classification	Typical Hydraulic Conductivity Ranges
Port Melbourne Sand (Qrp)	Raised beach ridges: bedded and cross bedded, well sorted sand, shelley sand, minor silty or clayey sand.	Aquifer, unconfined, porous medium.	$K - 10^{-6}$ m/s to 10^{-4} m/s
Coode Island Silt (Qc)	Soft clayey sediments with shells and organic materials, and lenses or thin layers of sandy materials.	Aquitard, porous medium, due to presence of sand layers and lenses horizontal hydraulic conductivity (K_h) greater than vertical (K_v).	$K_h - 10^{-8}$ m/s to 10^{-7} m/s $K_v - 10^{-9}$ m/s to 10^{-8} m/s
Fishermans Bent Silt (Qf)	Clay, silt with some sands typically towards the base of the unit (lower Fishermans Bend Silt).	Aquitard, porous medium, due to fissuring vertical hydraulic conductivity may be greater than horizontal.	$K_h - 10^{-9}$ m/s to 10^{-8} m/s $K_v - 10^{-8}$ m/s
Moray Street Gravels (Qm)	Medium to coarse grained quartz sands with minor gravels, clay and silt.	Aquifer, confined, porous medium, high yielding.	$K - 10^{-5}$ m/s to 5×10^{-4} m/s
Brighton Group (Tb)	Sand, sandy clay, clayey sand, silt, clay and occasionally gravel.	Aquifer, unconfined, porous medium, medium yielding aquifer where sandy but aquitard where clayey.	$K - 10^{-7}$ m/s to 5×10^{-6} m/s
Older Volcanics (Tov)	Olivine and pyroxene basalt with abundant volcanic glass, variably weathered and fractured.	Aquifer, confined, fractured rock medium, low (where weathered) to high hydraulic conductivity (where fractured).	$K - 10^{-7}$ m/s to 10^{-5} m/s
Werribee Formation (Tw)	Fluvial quartz sand, minor gravels, silty clays and clays.	Aquifer, confined porous medium, potentially high yielding aquifer (lower zone).	$K - 10^{-8}$ m/s to 10^{-5} m/s
Melbourne Formation (Sud)	Interbedded siltstone and sandstone, folded, fractured and variably weathered.	Aquifer, unconfined to semi-confined, fractured rock medium. (Referred herein as Silurian aquifer).	$K - 10^{-7}$ m/s to 10^{-5} m/s

Kh = horizontal hydraulic conductivity, Kv = vertical hydraulic conductivity

References

Leonard, J. G. 1992, An overview of Victoria's groundwater resources : background report / J. Leonard Dept. of Water Resources Melbourne

FedUni (2015). "Visualising Victoria's Groundwater." (internet data portal). Centre for eResearch and Digital Innovation, Federation University Australia, Mt Helen, Ballarat, Victoria. Retrieved 10/07/2016, from: <http://www.vvg.org.au>.

\\golder.gds\gap\melbourne\jobs\env\2016\1654703 - delwp psi fishermens bend\correspondence out\1654703-001-r-precinct_report\rev0\appendix c2 - topography and hydrogeology\appendix c2_environmental setting.docx



ACID SULFATE SOIL

Potential Acid Sulfate Soil

Acid sulfate soils (ASS) in Australia are commonly found in Holocene age sediments where the natural surface elevation is less than 5 mAHD and may be deeply deposited and covered by other sediments. Potential acid sulfate soils (PASS) contain iron pyrite which is stable in an un-oxidised state although can present a potential acid leachate risk if exposed to air, resulting in production of sulphuric acid by oxidation. These oxidising soils are commonly referred to as actual acid sulfate soils (AASS).

In general, the potential for soils to generate acid is a function of the geological history of the soils, and geomorphologic landscape within a given region. The Victorian Department of Primary Industries (DPI) has produced a series of maps illustrating the extent of estimated Coastal Acid Sulfate Soils along Victorian coastal regions.

Management of Acid Sulfate Soils (ASS) and Rock (ASR)

EPA Government Gazette, “Industrial Waste Management Policy on Waste Acid Sulphate Soils”, dated 1999 and EPA Information Bulletin Publication 655.1 “Acid Sulfate Soil and Rock” dated July 2009 provide specific guidance on the identification, assessment and management of Acid Sulfate Soils (ASS). The policy requires that a person must not cause or permit the disposal or re-use of waste ASS at any premises, except where the occupier of the premises:

- 1) Is licensed under the Environment Protection Act 1970 to dispose of that type of waste; or
- 2) Has an environment management plan prepared in accordance with the IWMP “Waste Acid Sulfate Soils” and approved by the Authority.

In situations where acid sulfate soils may be disturbed during development (such as excavation, exposure, dewatering or placement of fill), the Victorian EPA guidelines (EPA Information Bulletin 665.1) require that the site be managed to avoid and control adverse environmental impacts. The hierarchy for management is:

- 1) Avoid disturbance
- 2) Minimise disturbance
- 3) Prevent oxidation
- 4) Treat to reduce or neutralise acidity
- 5) Offsite reuse or disposal

Presence of Probable Acid Sulfate Soils

To assign for the presence of probable acid sulfate soils we reviewed the following information:

- Victorian Department of Primary Industries (DPI) series *Melbourne-T7822* map sheet illustrating the extent of estimated Coastal Acid Sulphate Soils around Melbourne and along Victorian coastal regions;
- Available published information on the site geology and geomorphology; and
- Available information relating to the presence of ASS, the regional topography and likely depth of groundwater.

The Quaternary Yarra Delta sediments (all quaternary units except the Newer Volcanic unit), specifically the Coode Island Silt (Qri) and potentially the Fishermens Bend Silt (Qpf), may be probable acid sulfate soils.

\\golder.gds\gap\melbourne\jobs\env\2016\1654703 - delwp psi fishermens bend\correspondence out\1654703-001-r-precinct_report\rev0\appendix c3 - acid sulfate soils\appendix c3_acid sulfate soils_updated.docx



APPENDIX D

Industrial Land Use Setting

Appendix D1 - Land Use and Contaminants of Interest

Appendix D2 - Contaminated Land and Urban Renewal Setting

Appendix D3 – Aerial Photographs

Appendix D4 – Planning Scheme

FISHERMANS BEND CONTAMINATION STUDY

Table D1 - Summary of Past and Present Land Use and Contaminants of Interest

DELWP
 1645703

Summary of Past and Present Land Use

Precinct	Approximate Area (ha) (not including roadways)	Precinct wide historical use and / or activities	Sub-precinct Historical Use and / or activities	Sub-precinct Current Use and / or activities	Development Status (since c1990)	Environmental Audit Status	Known past and present industries as identified by sub-precinct (refer to list at the base of this table for associated potential contaminants of interest)																			
							Fill	Landfill	General Industrial	Advanced Manufacturing: Aerospace	Advanced Manufacturing: Automotive and Machinery	Advanced Manufacturing: Hi-Tech	Light Manufacturing and Engineering	Cement, Lime, Plaster and Concrete Products	Shipping / Logistics / Distribution	Commerce / Business Services / Wholesaling	Open Space and Recreation									
Employment Precinct, Fishermans Bend																										
E01	8.6	Precinct develop from 1930s with focus on heavy industry and advanced manufacturing in automotive, aerospace, industrial research, food manufacturing, light and heavy engineering, steel works, CLPC products and port related activities. Westgate Park and open space located in west of precinct.	Raymond G.N. Ld (timber yard), Myltons, International Harvester Co / Fowlers Engineering, salvage yards.	Independent Cement and Lime Pty Ltd, Anacon Laboratory Services (CLPC NATA accredited lab), Dockside Business Park inc. BMW workshop, Strang Systems (distribution), sports bar, Installation Theatrical Engineering workshop.	Partially redeveloped.	One Audit completed (refer to Appendix D2)	✓		✓		✓			✓		✓	✓	✓								
E02	14.4		Accommodation, printing, Crema Constructions, Boral, Stewarts and Lloyds Aust (warehouse), Dept of Air No.1 Stores machinery factories, , distribution, Migrant Hostel, Neales Motors Autocraft.	Citiport Business Park, Boral Plasterboard plant, Port I.T. @ Turner Business Park, Crema Camillo Constructions, PrintLinX.	Partially redeveloped.	No Audits completed	✓		✓		✓		✓		✓		✓	✓	✓							
E03	7.2		Kraft, substation.	Kraft, substation.	No significant redevelopment.	No Audits completed	✓	✓	✓						✓											
E04	15.1		SEC workshop and yards, electrical terminal station, metal scrap yard.	Tranzport Distribution Centre (Futuris, Synetec), Toll Priority Warehouse, Siemens Rail Automation Manufacturing, ANTEC Engineering, electrical terminal station, Pappa Rich office / warehouse, distribution warehouses, BMT (Ballistic and Materials Testing).	Significant redevelopment; former SEC workshop and electrical terminal station remain.	No Audits completed	✓		✓		✓		✓		✓			✓	✓							
E05	12.7		GMH factories, GMH offices, Industrial and Domestic Equipment Co. (subsidiary to GM), GM Acceptance Corporation.	Portside Business Park (inc. heritage listed GMH offices), Equinox IBX Data Centres: ME1, The Bund Business Park (currently vacant)	Significant redevelopment.	No Audits completed	✓		✓	✓	✓										✓					
E06	37.7		GM Holden plant.	GM Holden plant and corporate office	Partially redeveloped, addition of new engine plant.	No Audits completed	✓	✓	✓		✓															
E07	8.5		Department of Works (storage yard), Hyland, D & Sons Pty Ltd (cold storage), Oakbond Cold Stores.	Gateway @ Port Business Park (CGT Printing), Salmon Street Business Park, GMH Headquarters (corporate office).	Significant redevelopment	No Audits completed	✓	✓	✓						✓						✓					
E08	13		Aeronautic Engine and Research Test Laboratory; Aeronautical Research Laboratories; Aeronautical and Maritime Research Laboratory.	Department of Science and Technology Group; Department of Science and Technology Organisation.	Partially redeveloped	No Audits completed, however limited information about environmental site assessments made public (refer to Appendix D2)	✓		✓	✓																
E09	7.8		Port Melbourne Munciple Tip, CAC airfield, automotive racetrack.	Melbourne International Shooting Club, Melbourne International Karting Complex, Westgate Park.	No significant redevelopment.	No Audits completed however as audit completed for portion of landfill south of Westgate Freeway (refer to Appendix D2)	✓	✓	✓															✓		
E10	5.8		CAC airfield, automotive racetrack.	Herald and Weekly Times print site and office.	Significant redevelopment.		✓		✓	✓				✓												
E11	21.6		Government Aircraft Factory (and subsequent organisations), SEC / Telecom storage, SEC training facility, PMG department.	Hawker de Havilland, Boeing Aerostructures Australia, Bridgeside Business Park (Intertek Testing Service, Oxley Net Specialists, Clamp Electrical Industries, Transfleet Transport, Bass Straight Transport, Yamaha City Port Melbourne, McMarine Metal Fabricators), Aerospace Technologies of Australia.	Significant redevelopment at Bridgeside BP; partially redeveloped at Boeing.	Two audits: a 53X for Bridgeside BP and a 53V for Boeing (refer to Appendix D2)	✓		✓	✓				✓	✓			✓	✓							
E12	21.1		Commonwealth Aircraft Corporation (and subsequent organisations)	Lorimer Business Park (CFMEU training facility, complete function hire, Medacta, 14 Degrees Bottlers - wine), Cititech Business Park (Supacat/ Rheinmetal Defence office and warehouse, Mercedes Benz workshop, Finsbury Press Pty Ltd, PolyNovo biodegradable polymer technology, Crommellin Waterproofing and Sealing Melbourne Service Centre), Aquatica Business Park.	Significant redevelopment; former and historic buildings removed.	One audit for Aquatica BP (refer to Appendix D2)	✓		✓	✓				✓	✓						✓					
E13	35		CAC airfield, Westgate Freeway construction site, automotive racetrack.	Westgate Park	No significant redevelopment.	No Audits completed	✓	✓	✓	✓				✓										✓		

Contaminants of Interest by Industrial Land Use

Fill

- Heavy metals (As, Cd, Cu, Cr, Hg, Pb, Ni, Zn) and potentially cyanide
- Polycyclic aromatic hydrocarbons (PAHs)
- Petroleum hydrocarbons (total petroleum hydrocarbons (TPH), monocyclic aromatic hydrocarbons (MAHs) and phenols)
- Pesticides / herbicides associated with spraying of weeds and pests
- Asbestos associated with the construction and demolition of existing and former buildings

Former Landfill

- Those potential contaminants of interest listed for General Industries and methane and hydrogen sulphide and other landfill gasses associated with landfill sites

General Industrial

- Heavy metals (As, Cd, Cu, Cr, Hg, Pb, Ni, Zn) and metalloid associated with imported fill and various industrial waste streams (e.g. foundries and other metal works, timber works, paint works, printing works etc).
- Polycyclic aromatic hydrocarbons (PAHs) associated with imported fill, use and storage of fuels and oils and various industrial waste streams.
- Petroleum hydrocarbons (total petroleum hydrocarbons (TPH), monocyclic aromatic hydrocarbons (MAHs) and phenols associated with the use and storage of fuels and oils and various industrial waste streams.
- Solvents (non-chlorinated solvents (e.g. kerosene, petroleum ether, white spirit, turpentine, phenol, acetone, MEK, MIBK, MBK) and chlorinated solvents (e.g. PCE, TCE, and breakdown products)) associated with the use and storage of lubricating and
- Polychlorinated biphenyls (PCBs) associated with substations.
- Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) associated with fire-fighting, fire training sites and facilities such as landfills, waste handling facilities and water treatment plants.

Advanced Manufacturing: Aerospace

Aerospace Industries

- Those potential contaminants of interest listed for General Industries and with attention to fuels and solvents (MEK, TCE, PCE, CVOC, 1,4 dioxane, acids, cyanide, dyes and resins)

Airfield / Racecourse

- Those potential contaminants of interest listed for General Industries.

Industrial Laboratory / Research Center

- Those potential contaminants of interest listed for General Industries and with attention to radiological contamination at DSTO.

Advanced Manufacturing: Automotive

Automotive Industries (includes vehicle manufacturing and related plants)

- Those potential contaminants of interest listed for General Industries and with attention to fuels, solvents, fluoride, methylenebis,

Metal Fabrication

- Those potential contaminants of interest listed for General Industries and with attention to silver for the Myttons site.

Advanced Manufacturing: Hi-Tech

Print and Paint

- Those potential contaminants of interest listed for General Industries.

Electronics

- Those potential contaminants of interest listed for General Industries

Medical

- Those potential contaminants of interest listed for General Industries

Laboratories

- Those potential contaminants of interest listed for General Industries

Light Manufacturing and Engineering

Depots and Workshops

- Those potential contaminants of interest listed for General Industries

Food Industry

- Those potential contaminants of interest listed for General Industries and inorganics including high salinity (TDS), nutrients (ammonia, nitrates, phosphate, sulphates), ethanol, caustic and chlorinated chemicals (alkalinity, pH, sodium hypochlorate, phosphates)

Utilities and Energy Services

- Those potential contaminants of interest listed for General Industries with attention to PCBs.

Mechanics and Mechanical Good

- Those potential contaminants of interest listed for General Industries

Timber Industries

- Those potential contaminants of interest listed for General Industries and with attention to CCA (copper, chromium and arsenic), creosotes, solvents and adhesives

Salvage Yards

- Those potential contaminants of interest listed for General Industries

Cement, Lime, Plaster and Concrete Products

Cement / Plaster / Precast products

- Those potential contaminants of interest listed for General Industries and high alkalinity (lime)

Shipping / Logistics / Distribution

Shipping / Logistics / Distribution

- Those potential contaminants of interest listed for General Industries.

Commerce / Business Services / Wholesaling

- Those potential contaminants of interest listed for General Industries.

Open Space and Recreation

Recreation and Sport Facilities

- Those potential contaminants of interest listed for General Industries.



SUB PRECINCT BOUNDARIES

As part of this preliminary land contamination study, past and present businesses and industrial land use were identified across the Employment Precinct. The precinct has been divided into thirteen sub-precincts based on the footprint of current and former large industrial sites (e.g. Government Aircraft Factory, Commonwealth Aircraft Corporation, GM Holden, Department of Science and Technology Group, Kraft, State Electricity Commission, Westgate Park) or groups of smaller sites. The purpose is to define sub-precincts with shared industrial history and within which identified companies are contained, the exception being the CAC Airfield which crosses multiple sub-precincts.

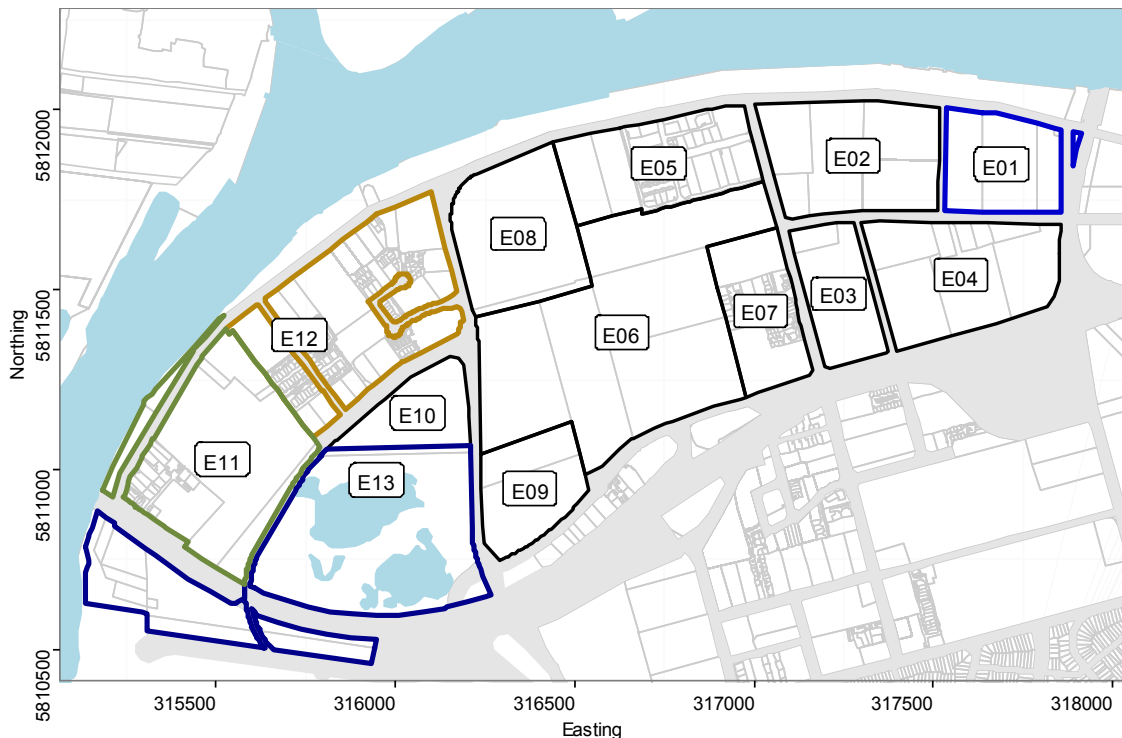


Figure D1-1: Sub Precincts within the Study Area. Sub-precincts divided by roadways have borders indicated by colour.

- The following sub-precincts are noted for the main occupancy by an individual company:
 - Sub-precinct E03 – current Kraft Foods (including the CitiPower substation)
 - Sub-precinct E04 – former State Electricity Commission
 - Sub-precinct E05 – former GM Holden Plant
 - Sub-precinct E06 – current GM Holden Plant
 - Sub-precinct E08 – current Department of Science and Technology Group
 - Sub-precinct E09 – former Port Melbourne Municipal Tip
 - Sub-precinct E10 – current Herald and Weekly Times print facility
 - Sub-precinct E11 – current Boeing Aerostructures Australia and former Government Aircraft Factory



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

- Sub-precinct E12 – former Commonwealth Aircraft Corporation
- Sub-precinct E13 – current Westgate Park
- The following sub-precincts are noted for their mixed land use and ownership. This approach is similar to that adopted in the Golder (2012) study:
 - Sub-precinct E01 – current mixed industry and distribution land use
 - Sub-precinct E02 - current mixed industry and business park land use
 - Sub-precinct E07 – current business parks

REVIEW OF LAND USE, GOODS AND SERVICES

A review of identified business and land uses with potential to influence the contamination ranking has been summarised in this appendix. The information below is intended to as a starting point to provide the reader with a high level overview of types of past and present land use. The following information has been summarised from this review of the public record:

- Past and present businesses and industrial land uses which have the potential to impact land use based on industrial sector and subsector, as presented in the Industry Sector Land Use model in the main report.
- Buildings and features of interest which provide some understanding of the extent and location of production of industrial goods and services, in particular for some of the larger sites. Information and site features has been identified through the public record and precinct walkover (from publicly accessible areas) and mapped.
- A summary of identified fuel storage tanks including underground storage tanks (USTs) and above ground storage tanks (ASTs) is included separately in this appendix (attached).

Periods of land use has been grouped into two categories: past (before 1990) and present (1990 onwards). This distinction is used the Environmental Audit system in Victoria began in 1989, representing a shift in the management of contaminated land in Victoria (see EPA Victoria, 2003, Publication 902, '*Environmental Auditing in Victoria*'). Land uses which existed across this distinction have been marked as both past and present.



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB-PRECINCT E01

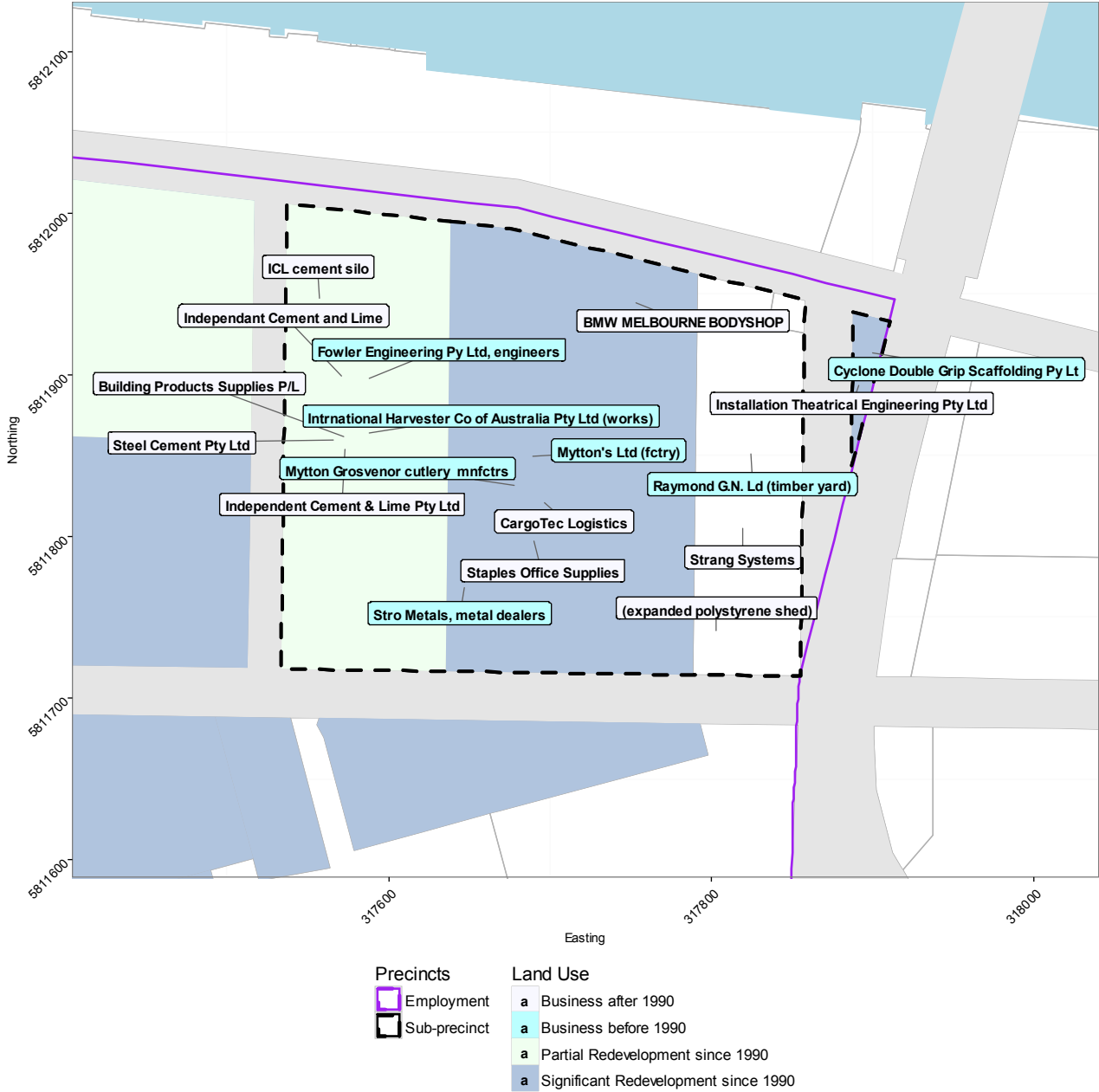
Table 1: Sub precinct E01 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		Salvage yards	<ul style="list-style-type: none"> Salvage and storage yards operated during WW2 for a variety of raw materials being collected and processed for the war effort. Materials gathered included timber, metal, rubber and fabric. 	c1940-c1945 during WW2 period	Australian War Memorial imagery: https://www.awm.gov.au/
X		Raymond G.N. Ld (timber yard)	<ul style="list-style-type: none"> Outdoor timberyard, with a possible drying kiln. 		Pratt, CD & Airspy (1950), Aerial view of Fisherman's Bend, Image H2008.32/6. Pictures Collection State of Library Victoria (included in the main report)
	X	Strang Systems – Melbourne Coil Center	<ul style="list-style-type: none"> Logistics and distribution company which specialises in metal product transportation services. This site has an expanded polystyrene (EPS) block molding facility to create custom moulds for object transport in standard containers. The EPS system can also recycle polystyrene. 		Company website: http://www.strangsystems.com/Lorimer.html
X	X	Mytton Rodd	<ul style="list-style-type: none"> Specialised in the manufacture of jewellery, silver ware, hollowware (e.g. metal jugs). Silverware products were sold under brand names including 'Grosvenor', 'Rodd' and 'Mytton Rodd'. Myttons were also involved in manufacturing of metal items including kitchen sinks, beer barrels, bulk liquid transport tanks (e.g. milk tanks). Mytton had a non-ferrous foundry and rolling mills to make sheet metal. 		<p>Memories of Mytton Rodd, http://www.myttonrodd.9k.com/, viewed 20 July 2016</p> <p>The foundry is visible in aerial photos (see main report).</p>
	X	BMW workshop	<ul style="list-style-type: none"> BMW repair and service garage. 	Mid 1990s – began operation	<p>BMW Bodyshop website: http://www.bmwmelbourne.com.au/com/en/insights/BMW%20Bodyshop/</p> <p>The site was subject to an EPA Audit Report, CARMs No. 42748-2</p>
	X	Dockside Business Park	<ul style="list-style-type: none"> The former Mytton Rodd site was redeveloped into a large warehouse and distribution site for commercial and non-industrial goods. 		
X	X	International Harvester Co / Fowlers Engineering	<ul style="list-style-type: none"> Manufacturers of tractors and farm machinery. 	<p>1950 – Fowler Engineering opens</p> <p>1958 – International Harvester Co takes over</p>	<p>QUICK, G. R. (2009). <i>International Harvester tractors and equipment in Australia and New Zealand</i>. Dural Delivery Centre, N.S.W., Rosenberg. http://site.ebrary.com/id/10632063</p> <p>The foundry is visible in aerial photos (see main report).</p>
X	X	Independent Cement and Lime Pty Ltd	<p>Supplier and wholesaler of cement and cement related products including:</p> <ul style="list-style-type: none"> General blend cements from cement, slag and fly ash. High volume supplier to construction industry. Building product supplies (packed cement, dry mix concrete, hydrated lime, mortar mixes, dried sands, plasters, oxides, liquid additives) 	1987 – ICL established	Company website: http://www.independentcement.com.au/



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E01





APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E02

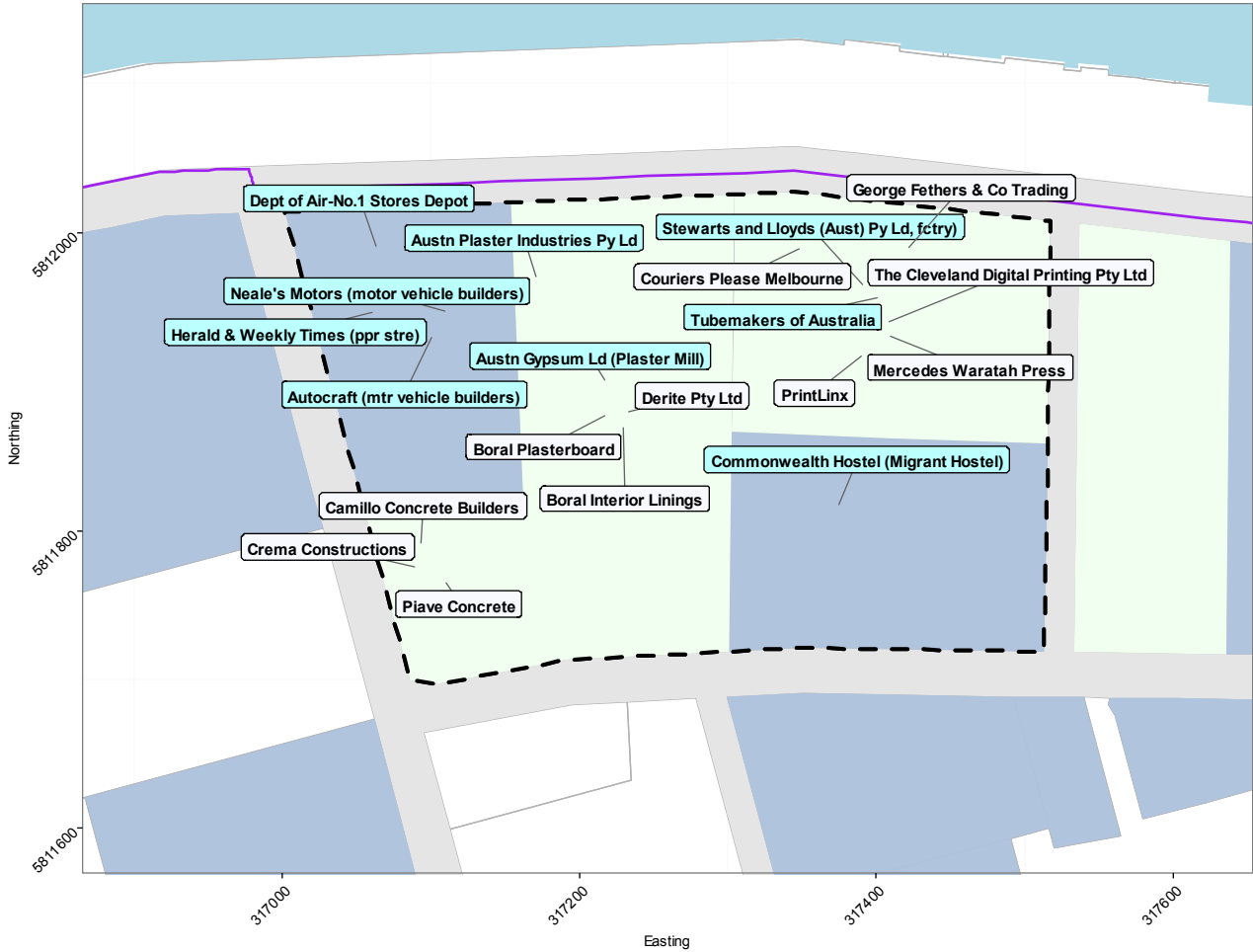
Table 2: Sub precinct E02 Land Use, Goods and Services

Past Present	Business / Land use of Interest	Businesses, Goods and Services	Timeline	Additional Sources for Product and Site Information
X	Dept. of Air no.1 Store	<ul style="list-style-type: none"> - Distribution centre for materials needed to support war effort. - Associated with the salvage yards east of Salmon Street. 		Salvage materials stored in vacant land visible in aerial photographs from war period. (see main report).
X	Neales / AutoCraft	<ul style="list-style-type: none"> - Automobile manufacture and assembly 	1938 - Neale's Motors relocate from Port Melbourne 1954 - Austin Motor Company take over Neale's Motor Site (AutoCraft)	Rootes Ltd Factory [former] 19-25 Salmon Street, Port Melbourne HERITAGE ASSESSMENT
X	Stewarts and Lloyds Aust. (factory)	<ul style="list-style-type: none"> - Manufacturer of products such as steel pipes, boilers, stay tubes, and water bore casing. - The company was based in New Castle; unclear to what extent Fishermans Bend site used for manufacture of raw products versus distribution. 		Corporate Entry: Stewart and Lloyds (Aust) Pty Ltd (1920s – 1970s), http://www.eoas.info/biogs/A001456b.htm , viewed 24 July 2016
X	X Boral Plasterboard	<ul style="list-style-type: none"> - Large scale manufacturers of plaster products and plasterboard 	1965 - Boral start making plastered based products 1970 - Boral commence plasterboard production 2012 - Boral plasterboard plant upgrade; gypsum receiving system from ships installed	Company website: http://www.boral.com.au/
X	X Crema Camillo Construction	<ul style="list-style-type: none"> - Construction company with specialisation in pre-fabricated concrete panels. 	1980s – establishes in Fisherman's Bend. Pre-cast factory built at this time. 1990s – Piave Premix Concrete added to business	Company website: http://www.crema.com.au/about/
	X PrintLinX	<ul style="list-style-type: none"> - Print and publishing services 		Company website: http://www.printlinx.com.au/ Current printing equipment: http://www.printlinx.com.au/printing.php
	X Port IT Turner @	<ul style="list-style-type: none"> - Commercial services and offices 		



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E02



Precincts	Land Use
Employment	a Business after 1990
Sub-precinct	a Business before 1990
	a Partial Redevelopment since 1990
	a Significant Redevelopment since 1990



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E03

Table 3: Sub precinct E03 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X	X	Kraft	<ul style="list-style-type: none">- Food product manufacturer, including processed cheese, yeast extract, beef extract, meat and fish pastes.- Site renowned for manufacture of Vegemite.	<p>1940s / 50s – original plant established</p> <p>1960s – plant expansion</p> <p>Site currently operational</p>	National Archives of Australia A1200, L22723.
X	X	Substation	<ul style="list-style-type: none">- Older style transformers observed during site walkover.	<p>c.1935 – initial installation with GMH plant</p> <p>sub-station currently operational</p>	Visible in early aerial photographs behind original GM Holden plant (see main report).



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E03





APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E04

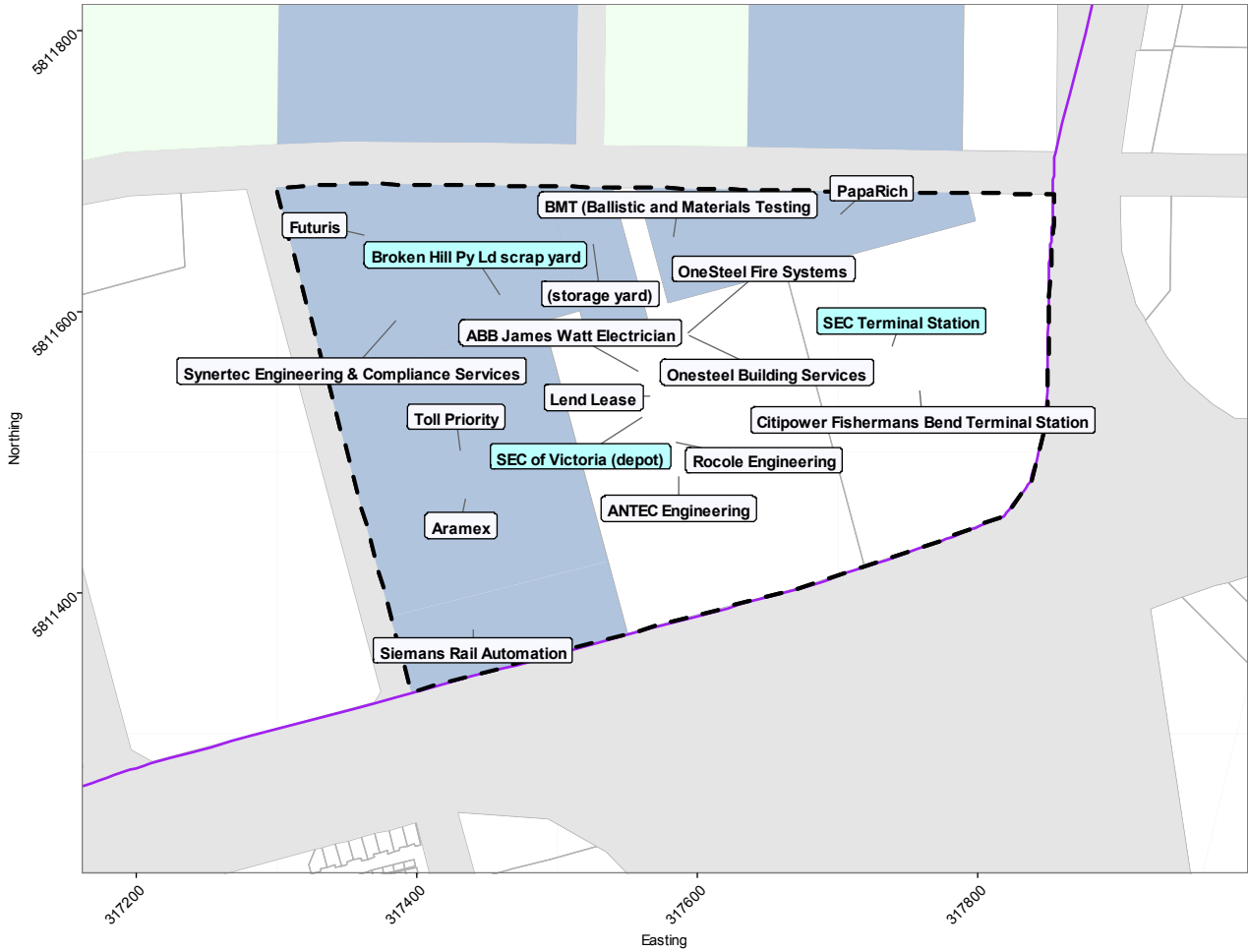
Table 4: Sub precinct E04 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		State Electricity Commission (SEC) Yard and Workshop	- SEC was responsible for electricity generation, transmission and distribution.	1921 - SEC formed 1924 - Latrobe Valley comes online 1992 - Vertically integrated industry split	Brady, F. A., 1997. A Dictionary on electricity : a joint project of CIGRE and AHEF contribution on Australia. , Melbourne: CIGRE.
X	X	Electricity Transfer Station		1960s – station constructed 1976 - Transfer Station Extended Present - currently managed by CitiPower	
X		metal scrap yard	- Sorting and sale of scrap metal		
	X	Futuris	- Head office and warehouse for Futuris, a manufacturer in car interior products.		Company website: http://futurisgroup.com/
	X	Toll Priority Warehouse	- Distribution centre		Company website: http://www.tollgroup.com/tollpriority
	X	Siemens Rail Automation	- Involved in the upgrade and automation of railways across Victoria		Company website: http://www.mobility.siemens.com/mobility/global/en/rail-solutions/rail-automation/pages/rail-automation.aspx
	X	ANTEC Engineering	- Supplier of products to mining, minerals processing, construction and infrastructure industries.		Company website: http://antec.com.au/
	X	Pappa Rich	- Food storage and supply point for food chain.		Company website:
	X	BMT (Ballistic and Materials Testing)	- Laboratory for ballistic product testing		Company website: http://www.armourtesting.com/



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E04



Precincts	Land Use
Employment	a Business after 1990
Sub-precinct	a Business before 1990
	a Partial Redevelopment since 1990
	a Significant Redevelopment since 1990



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E05

Table 5: Sub precinct E05 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		GM Holden plant - Pre War	- Motor vehicle manufacture	1936 - New Assembly Plant at Fisherman's Bend, 20 Ha	
X		GM Holden plant - War Time	- Production of various metal forged and pressed goods and vehicles, including guns, munitions, aircraft assemblies and engines, bombs, shells, torpedo components and engines, diesel marine units, folding boats, military vehicle, and spare parts.	1939 - WWII declared, Holden commits facilities to Federal Government 1943 - Military contracts slowing, design teams begin on light vehicle design.	General Motors-Holden's Ltd., [between 1940 and 1945], War production by General Motors-Holden's Ltd., http://nla.gov.au/nla.us-vn4740564
X		GM Holden plant - Post War	- Vehicle engine plant and assembly line	1947 – Significant investment in a mechanical fabrication, engine and transmission manufacture and foundry facilities at Fishermens Bend. 1948 - Holden Number One (body No.6) production ready car off assembly line. 1952 - Expansions announced to enlarge and modernise production 1964 - Research Facility opens at Fishermens Bend to provide state of the art automotive design and development facilities.	General Motors-Holden's Limited. 1956, <i>About ourselves / by General Motors-Holden's Limited</i> , Twelfth Edition, Public Relations Dept., General Motors-Holden's Limited Melbourne http://www.hrc.org.au/images/Memories/Holden/About%20Ourselves%202156.pdf
	X	Portside Business Park	Land use, goods and services of interest: - Rentokil Melbourne office (service providers for vermin and pest control). - Taubman's Paints (store selling paint and solvent products).		Company website: http://www.rentokil.com.au/ http://www.taubmans.com.au/
	X	Equinix IBX Data Centres: ME1	- Modern data centre and server warehouse.		Company website: http://www.equinix.com.au/locations/australia-colocation/melbourne-data-centers/me1/



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Identified layout and features of the Original GM Holden Plant





APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E05





SUB PRECINCT E06

Table 6: Sub precinct E06 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X	X	GM Holden – Plant	<p>Engine plant and assembly line. notable site features include:</p> <p>Engine plants:</p> <ul style="list-style-type: none"> - 6-cylinder engine plant - V8 engine plant - 4-cylinder engine plant - V6 engine plant <p>Foundries</p> <ul style="list-style-type: none"> - Grey iron foundry - Nodular iron foundry <p>Detailed mapping of the site was not identified on the public record during this review.</p>	<p>1963 - New 6-cylinder engine plant and foundry commence operations at Fisherman’s Bend; capacity is 700 engines a day.</p> <p>1965 - A new, mechanised grey iron foundry begins pouring.</p> <p>1967 - New nodular iron foundry opens.</p> <p>1969 - A V8 engine manufacturing plant opens.</p> <p>1979 - Holden announces a \$300 million expansion plan, which includes a new 4 cylinder engine plant and foundry modernisation program.</p> <p>2003 - \$400 million V6 engine plant is opened in Port Melbourne.</p>	<p>General Motors-Holden’s Limited. 1956, <i>About ourselves / by General Motors-Holden’s Limited</i>, Twelfth Edition, Public Relations Dept., General Motors-Holden’s Limited Melbourne</p> <p>Holden Cars History, 2011, http://www.classicholdencars.com/holden-cars/, viewed 02 June 2016</p>

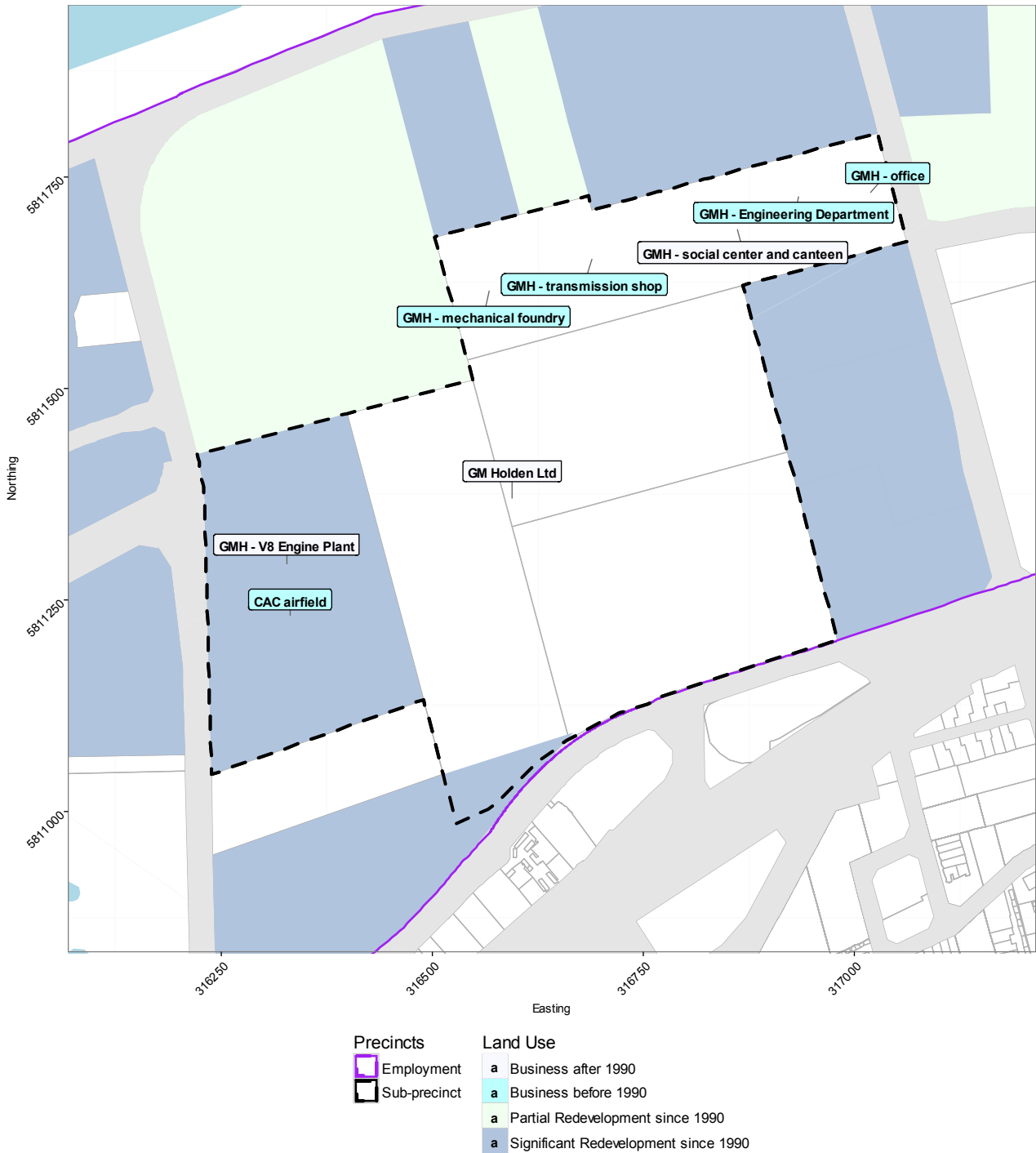
Identified Layout and features of the current GM Holden plant





APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E06





APPENDIX D1
SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E07

Table 7: Sub precinct E07 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		Department of Works (storage yard). Also known as the Public Works Department	<ul style="list-style-type: none"> - Department responsible for the design, construction and maintenance of government buildings such as government buildings, schools, hospitals and other public buildings. - Site listed as a storage yard; site likely included workshops. 	1855 – Public Works Department (Victoria) 1987 – Ministry of Housing and Construction (Victoria) 1991 – Dept. of Planning and Housing 1992 – Dept. of Planning and Development	'Victoria. Public Works Department. (1855-1987)' 2008.Trove, viewed 25 July 2016 http://nla.gov.au/nla.party-495163 Public Record Office of Victoria, Public Works Department (VA 669), http://prov.vic.gov.au/provguid/e-28 , viewed on 07 July 2016
X		Hyland, D & Sons Pty Ltd (cold storage)	<ul style="list-style-type: none"> - Inferred refrigerated storage of food goods. 		Business information not identified during review.
X		Oakbond Cold Stores	<ul style="list-style-type: none"> - Inferred refrigerated storage of food goods. 		Business information not identified during this review.
	X	Gateway @ Port Business Park	Land use, goods and services of interest: <ul style="list-style-type: none"> - Press Printing (small scale printing service) 		
	X	Salmon Street Business Park	Land use, goods and services of interest: <ul style="list-style-type: none"> - Scientific Services Laboratory (industrial paint testing (part of AGAL)– has since moved to CSIRO Clayton Site) 		Scientific Services Laboratory http://www.apas.gov.au/history.htm
	X	GM Holden Office Building	<ul style="list-style-type: none"> - No businesses were identified during this review. 		



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E07





APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E08

Table 8: Sub precinct E08 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		Aeronautical & Engine Research Test Laboratory	- Research site established alongside GAF and CAC to undertake aerospace research.	1939 - Aeronautical & Engine Research Test Laboratory opens at Fisherman's Bend	
X		Aeronautical Research Laboratories	Research services and activities included: - aircraft and aircraft systems - aerodynamics - aircraft materials - structural integrity - propulsion and engine systems	1949 - Renamed Aeronautical Research Laboratory and transferred to Defence Scientific Service 1972 - ARL transferred to the Department of Manufacturing Industry	Australian Bureau of Statistics Yearbook, 1986
X		Aeronautical & Maritime Research Laboratory	- Focus on both aeronautical and maritime research.	1994 - ARL and MRL merge to form the Aeronautical & Maritime Research Laboratory (AMRL) headquartered in Fishermans Bend	
	X	Department of Science and Technology Organisation (DSTO)	- Industrial research for defence related applications.	2004 - H A Wills Structures and Materials Test Centre opened 2004 - CBRN functions transferred from Maribyrnong to Fishermans Bend. 2007 - DSTO Maribyrnong closes with personnel and facilities relocated to DSTO Fishermans Bend site.	
	X	Department of Science and Technology Group (DSTG)	- Industrial research for defence related applications.	2015 – Renamed Defence Science and Technology Group	



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E08





SUB PRECINCT E09

Table 9: Sub precinct E09 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		CAC airfield	- Airfield and runways attached to the GAF and CAC factories.	c.1937 – constructed along with CAC factories c.1970s – SW-NE runway removed; N-S runway converted into Todd Road.	
X		Automotive Racetrack	- After WW2 the newer aircraft required longer runways which were not possible at Fishermans Bend. The runway was used as a circuit for local motor car racing events.	c.1948 – c.1962 – airfield used for motor car racing	Nancy U'Ren and Noel Turnbull, A history of Port Melbourne, Oxford University Press, 1983, sourced from: Fishermans Bend, http://www.victorianplaces.com.au/fishermans-bend , viewed 03 August 2016
X		Port Melbourne Municipal Tip	- During the 1960s the Port Melbourne municipal was operation and infilled the large excavation to the southeast of the runway. - This sub precinct is inferred to be located on the northern extent of the landfill, however the depth of landfill beneath the site is unknown. - The landfill ceased operation in the early 1970s with the construction of the Westgate freeway.	c.1960 – landfill activities begin c.1970 – landfill completed to allow construction of Westgate Freeway	Landfill operations are visible in the background of the mages below. High resolution images (available through the Picture Collection, State Library of Victoria) show active truck emptying at the tip face. Refer to Section 3.0 of the main report for discussion and photographs.
X		Melbourne International Shooting Club	- Indoor and outdoor shooting range.	1970s – moved to Fishermans Bend	Company website: http://melbourneinternational.org.au/index.php/the-club
X		Melbourne International Karting Complex	- This site appears vacant until developed into the present karting complex. - Some fill materials used to landscape the karting complex appears in aerial photos from 1982 and 1990 (Appendix D3).	1995 – The club moves to Port Melbourne from Brooklyn and the track opens	Company website: http://www.gkcv.com.au/History.aspx



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E09





APPENDIX D1
SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E10

Table 10: Sub precinct E10 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		CAC airfield	- Airfield and runways attached to the GAF and CAC factories	c.1937 – constructed along with CAC factories c.1970s – SW-NE runway removed; N-S runway converted into Todd Road.	
X		Automotive Racetrack	- After WW2 the newer aircraft required longer runways which were not possible at Fishermans Bend. The runway was used as a circuit for local motor car racing events.	c.1948 – c.1962 – airfield used for motor car racing	Nancy U'Ren and Noel Turnbull, A history of Port Melbourne, Oxford University Press, 1983, sourced from: Fishermans Bend, http://www.victorianplaces.com.au/fishermans-bend , viewed 03 August 2016
X		Westgate Construction Site	- construction and work area for Westgate Freeway and Bridge Construction.		Site huts, equipment and materials visible in aerial image from 1970s.
	X	Herald and weekly Time Printing Plant	- Print site for newspapers including the Herald Sun.	1993 - HWT Printing Plant opens	http://www.heraldsun.com.au/news/special-features/about-the-herald-sun/story-e6frf7oo-111112840019



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E10



Precincts	Land Use
Employment	a Business after 1990
Sub-precinct	a Business before 1990
	a Partial Redevelopment since 1990
	a Significant Redevelopment since 1990



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E11

Table 11: Sub precinct E11 Land Use, Goods and Services

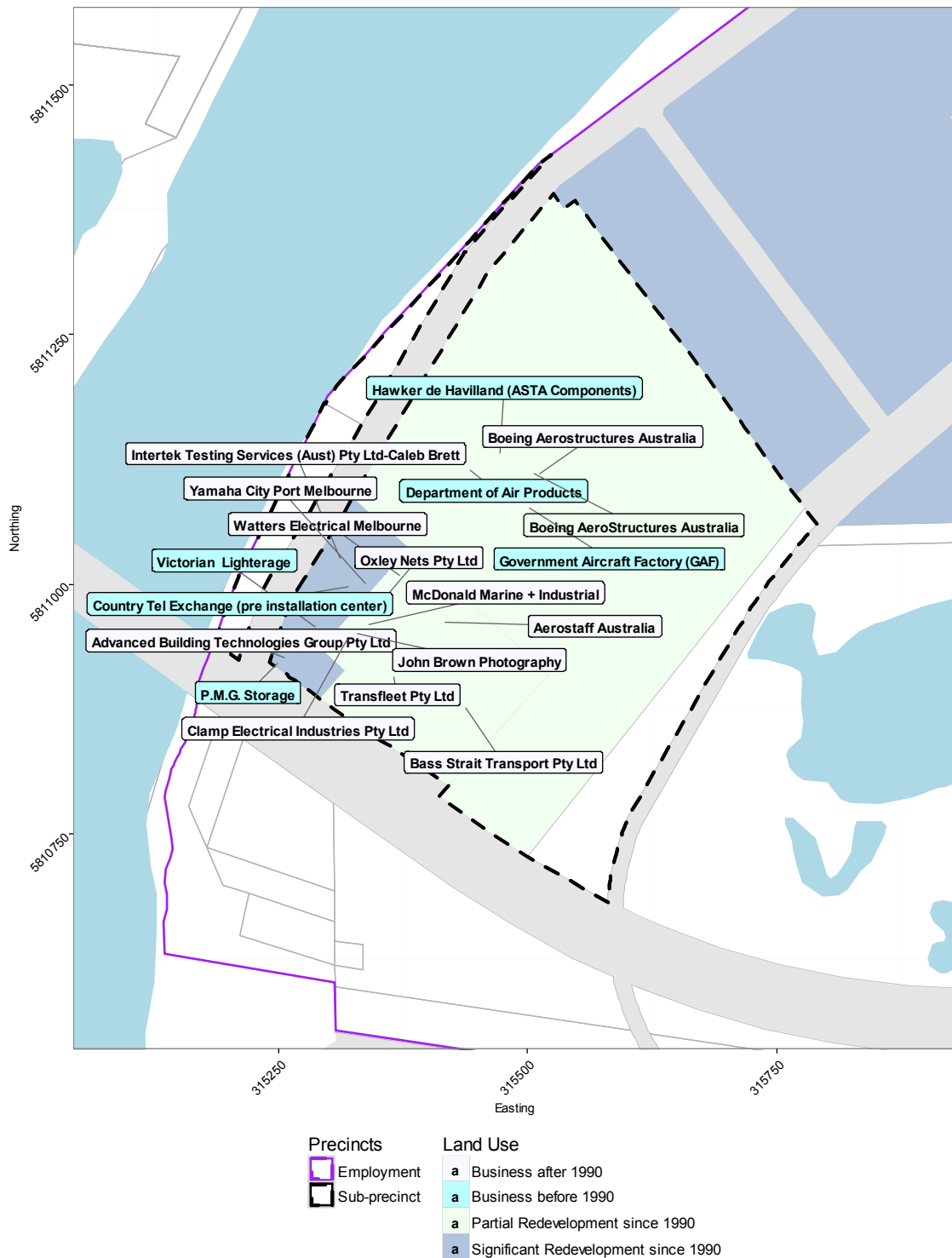
Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		Rifle Range	- An early rifle range was located across the southern end of the runway.		Keperit, J.L. (1993), FISHERMENS BEND - A CENTRE OF AUSTRALIAN AVIATION, General Document 39, Department of Defence, COMMONWEALTH OF AUSTRALIA
X		Government Aircraft Factory	Manufacture of aircraft and related components, including [1]: <ul style="list-style-type: none"> - structural bonding - surface coating and chemical milling - electroplating - treatment of effluent generated from electroplating - storage of liquid and solid hazardous materials - painting of aircraft and related components - hydraulic testing - maintenance activities - storage of waste chemicals pending disposal - photographic and chemical laboratories - timber mill 	1939 - Government Aircraft Factory opens	[1] Site history information included in EPA Audit CARMS No. 32409-1, http://apps.epa.vic.gov.au/EnvAuditFiles/53X/32409-1/32409-1_b_C.pdf GAF, viewed 02 June 2016 https://en.wikipedia.org/wiki/Government_Aircraft_Factories
X		GAF Extension - Structural Bonding Workshop	- During this period GAF was working on aircraft and guided weapons	1983 - Construction of structural bonding workshop	NAA 12909, 4323, New manufacturing and repair workshop for the Government Aircraft Factories, Fishermen's Bend, Victoria - Related to Decision No 12726
X	X	AeroSpace Technologies of Australia	Goods and services include: <ul style="list-style-type: none"> - Aircraft and system design - Composite and metal alloy fabrication - Structural repairs - Vibration and environment testing 	1987 - GAF reorganised and renamed AeroSpace Technologies of Australia Pty Ltd.	
	X	Boeing Aerostructures Australia	<ul style="list-style-type: none"> - Design, testing and manufacturing facility for component parts used in aircraft - Major exporter of components to Boeing, Airbus, Lockheed Martin, Bombardier and other airplane manufacturers. - Parts for Boeing's 787 Dreamliner. 	1995 - ASTA privatised and purchased by the Boeing Company. 2000 – Hawke de Havilland purchased by Boeing and merged with ASTA to form HDH Aerospace, a division within Boeing Australia. 2009 – HDH changes name to Boeing Aerostructures Australia	Company website: http://www.boeing.com.au/boeing-in-australia/history.page Hawke de Havilland, viewed 02 June 2016, https://en.wikipedia.org/wiki/De_Havilland_Australia
	X	Bridgeside Business Park	Land use, goods and services of interest: <ul style="list-style-type: none"> - Intertek Testing Service (industrial laboratory testing services) - Oxley Net Specialists (net manufacturer) - McMarine Metal Fabricators (netting and rigging systems) - Clamp Electrical Industries (electric motor servicing) - Yamaha City Port Melbourne (motorbike service centre) - Transfleet Transport (container and freight transport) 		Intertek Testing Service: http://www.intertek.com/ Oxley Net Specialists: http://oxleynets.com.au/ McMarine Metal Fabricators http://mcmarine.com.au/ Clamp Electrical Industries http://www.clampelec.com.au/ Yamaha City Port Melbourne http://www.yamahacity.com.au/ Transfleet Transport http://www.transfleet.com.au/ Bass Strait Transport http://www.bst.net.au/



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

	<ul style="list-style-type: none"> - Bass Strait Transport (container and freight transport) - STS Aerostaff Services (aircraft equipment and maintenance) 	STS Aerostaff Services (none identified)
--	--	--

Past and Present Land Use: Sub Precinct E11





Identified layout and features of the Government Aircraft Factory





APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

SUB PRECINCT E12

Table 12: Sub precinct E12 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		Melbourne Harbour Trust (MHT)	MHT timber storage area		Melbourne and Metropolitan Board of Works plan, scale 160 feet to 1 inch. no.9, Port Melbourne, c1894, Pictures Collection State of Library Victoria
	X	Commonwealth Aircraft Corporation	<ul style="list-style-type: none"> - The factory was used for the construction of aircraft and engines and Liquid Alloy Foundry (aluminium and magnesium foundry) were located on site. Later test facilities were constructed for jet engine testing. - Site layout information from the public record is presented in the figure below. - The following aircraft were constructed on site: Avro Lincoln, the Tiger Moth, the Canberra bomber, the Sabre jet, the Beaufort, the Boomerang, the Mustang, the Winjeel, and the Jindavik (which was pilotless). [2] - By the late 1960s, aircraft construction. The CAC was taken over by the then Aeronautical and Maritime Research Laboratory [2]. 	<p>1937 - Airfield constructed, plant opened 1954 - Commonwealth Test Cells 1 & 2 open c.late 1960s – aircraft construction has ended.</p>	<p>For information on the engine test cells, refer to EPA Audit CARMs No. 32409-2</p> <p>Beaufort Restoration: http://www.beaufortrestoration.com.au/Pages/ProductionChild/Manufacturers/CAC.html</p> <p>[2] 1948 – Fishermans Bend Aerodrome, Looking Back - 1939 to 2011 - the Autobiography of Robert V. J. Padula, OAM (2011), http://bpadula.tripod.com/autobiography/index.html, viewed 02 June 2016</p>
X		State Electricity Commission (SEC) training facility	<ul style="list-style-type: none"> - The SEC constructed a training facility beside the GAF factory. 	1948 – SEC training facility	1948 – Fishermans Bend Aerodrome, Looking Back - 1939 to 2011 - the Autobiography of Robert V. J. Padula, OAM (2011), http://bpadula.tripod.com/autobiography/index.html , viewed 02 June 2016
	X	Post Master Generals (PMG) Department	<ul style="list-style-type: none"> - The PMG department were responsible for the rollout of Telecommunications. AS part of the roll out a training program was established. A Lineman-in-Training scheme was set up, with a training building beside the CAC in Fishermans Bend [1]. - The training facility taught, amongst other things installation and maintenance of transmission line and cables [2]. - When converted to an engineering workshop, it constructed pre-installed small telephone exchanges. 	<p>1949 – PMG Department Linesman Training Facility 1967 – Linesman Training facility moves and site take over by PMG Engineering workshop 1975 – PMG becomes Telecom and Australia Post.</p>	<p>[1] 1948 – Fishermans Bend Aerodrome, Looking Back - 1939 to 2011 - the Autobiography of Robert V. J. Padula, OAM (2011), http://bpadula.tripod.com/autobiography/index.html, viewed 02 June 2016</p> <p>[2] 1956 – Trainee Telecommunications Technician, Looking Back - 1939 to 2011 - the Autobiography of Robert V. J. Padula, OAM (2011), http://bpadula.tripod.com/autobiography/id14.html, viewed 02 June 2016</p> <p>[3] Postmaster Generals Department, https://en.wikipedia.org/wiki/, viewed 03August 2016,</p>
	X	Hawke de Havilland	<ul style="list-style-type: none"> - Design, testing and manufacturing facility for component parts used in aircraft. 	1986 - Hawke de Havilland purchases CAC 2000 - HDH purchased by Boeing and merged with ASTA to form HDH	



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

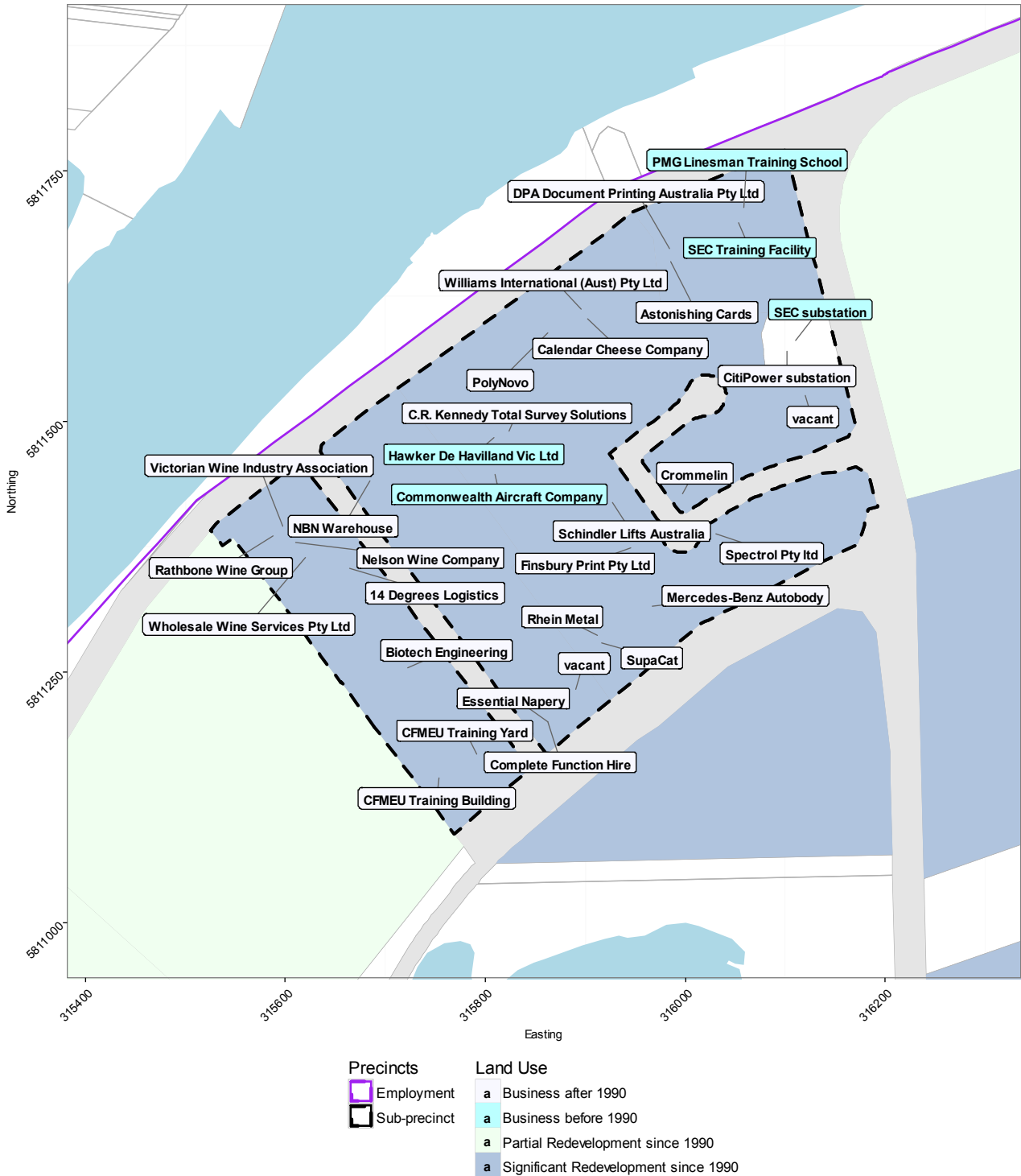
Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
				Aerospace, a division within Boeing Australia ¹ c.2004 – former CAC site sold for redevelopment. Only the No.3 Aircraft Factory retained with the current Boeing facility.	
	X	Lorimer Business Park	Land use, goods and services of interest: <ul style="list-style-type: none"> - CFMEU training facility (includes high rise crane and rigging training) - Complete Function Hire (function hire; small workshop attached) - 14 Degrees Logistics. Bulk wine distribution and warehouse. Site contains several large refrigerated above ground storage tanks for bulk liquid storage of food products. Bottling plant and packing line. Storage and distribution warehouse 		Complete Function Hire http://www.cfhire.com.au/
	X	Cititech Business Park	Land use, goods and services of interest: <ul style="list-style-type: none"> - Finsbury Green Pty Ltd (Commercial printing services) - Supacat (Office and warehouse). Manufacturer of high mobility vehicles for military applications. - Rheinmetal Defence (office and warehouse). Manufacturing for military applications, specialising in weapon and ammunition, electronics and vehicle systems. - Mercedes Benz workshop. (Workshop and mechanical repairs) - PolyNovo (On site manufacturing of biodegradable polymer technology. Use for treatment of burns, surgical wounds and skin repair) - Crommellin Waterproofing and Sealing (store). Manufacturer of chemicals for waterproofing and sealing applications. 		Finsbury Green Pty Ltd https://finsbury.com.au/ Supacat http://supacat.com/ Rheinmetal Defence http://www.rheinmetall-defence.com/ PolyNovo http://www.polynovo.com.au/ Crommlelin http://www.crommellin.com.au/

¹ https://en.wikipedia.org/wiki/De_Havilland_Australia



APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E12





APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Identified layout and features of the Commonwealth Aircraft Factory





**APPENDIX D1
SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES**

SUB PRECINCT E13

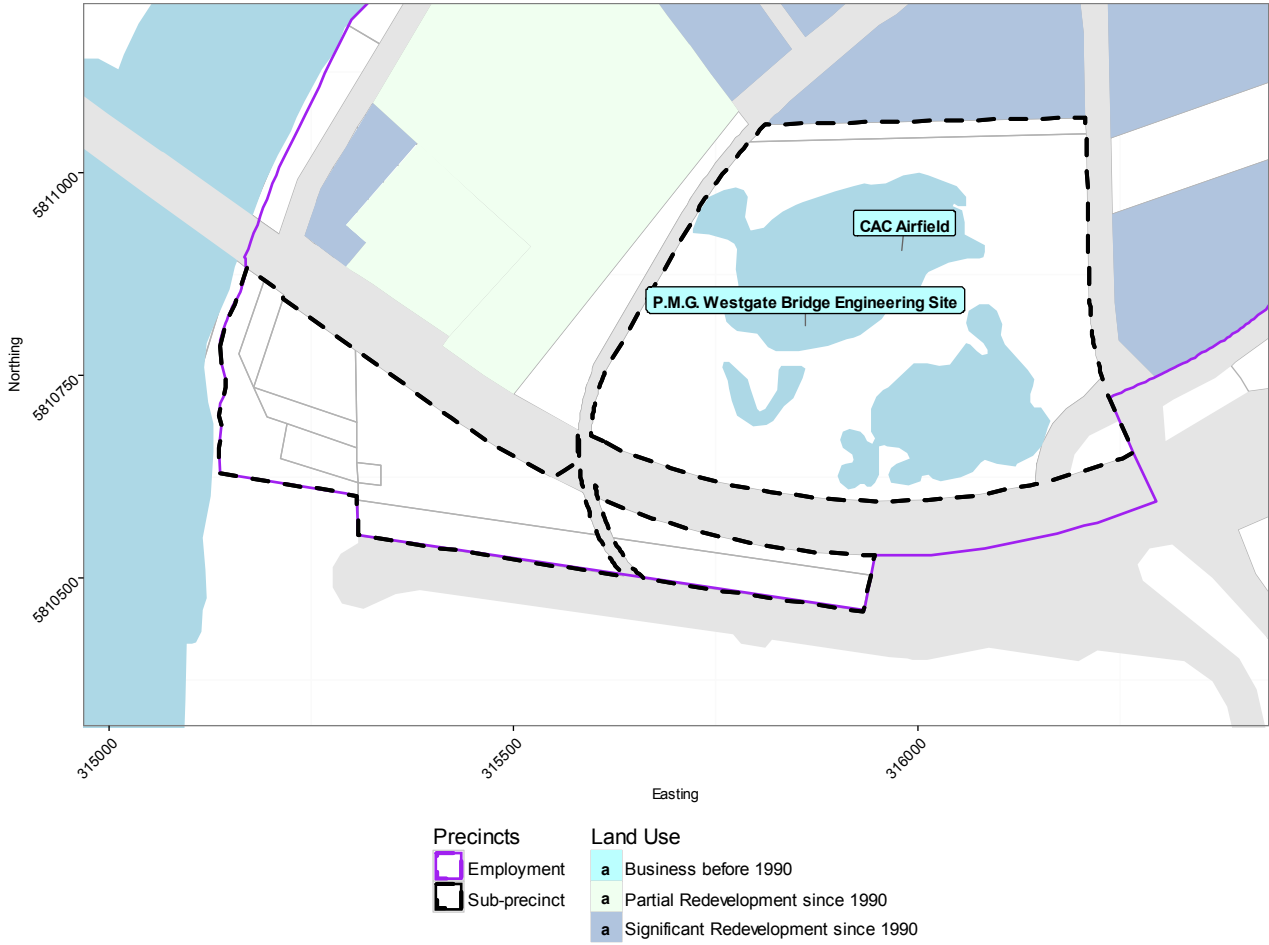
Table 13: Sub precinct WG01 Land Use, Goods and Services

Past	Present	Business / Land use of Interest	Land Use, Goods and Services	Timeline	Additional Sources for Product and Site Information
X		CAC airfield	<ul style="list-style-type: none"> - Part of the former CAC airfield. The present day saltwater lagoon appeared at this time, and was likely excavated to provide sand for the runway construction. - A GSV report from 1984 documents parts of the lagoon being used for waste disposal, including metal shavings. 	<p>c.1938 – runway constructed c1948 – airfield closed. 1970s – used as construction for Westgate Freeway</p>	<p>Video showing airfield: Demonstration of AFVs at Fisherman's Bend, 1942, 35mm/b&w /silent, F07029, Australian War Memorial, https://www.awm.gov.au/collec tion/F07029/</p> <p>Geological Survey of Victoria, Westgate Park Groundwater Study, Mooney, A, Unpublished Report 1984/78</p>
X		Automotive Racetrack	<ul style="list-style-type: none"> - After WW2 the newer aircraft required longer runways which were not possible at Fishermans Bend. The runway was used as a circuit for local motor car racing events. 	<p>c.1948 – c.1962 – airfield used for motor car racing</p>	<p>Nancy U'Ren and Noel Turnbull, A history of Port Melbourne, Oxford University Press, 1983, sourced from: Fishermans Bend, http://www.victorianplaces.co m.au/fishermans-bend, viewed 03 August 2016</p>
X		Westgate freeway construction site	<ul style="list-style-type: none"> - During the construction of the Westgate freeway the sub precinct was used as a construction site. 	<p>Late 1960s to 1970s – construction for Westgate Freeway</p>	<p>Refer to Aerial Photo -1972 (Appendix D3).</p>
X	X	Westgate Park	<ul style="list-style-type: none"> - After construction of the freeway the area was developed into the present Westgate Park. Part of the park redevelopment was to import a large volume of fill for landscaping purposes. The original salt water lake was retained, and a new freshwater lake was created within the imported material. This freshwater lake is currently supplied by stormwater from adjacent paved sites. - The site has undergone extensive replanting since the park opened. 	<p>1985 – Westgate Park opens</p>	<p>Park website: http://www.westgatepark.org/fr iends-of-westgate-park/</p>



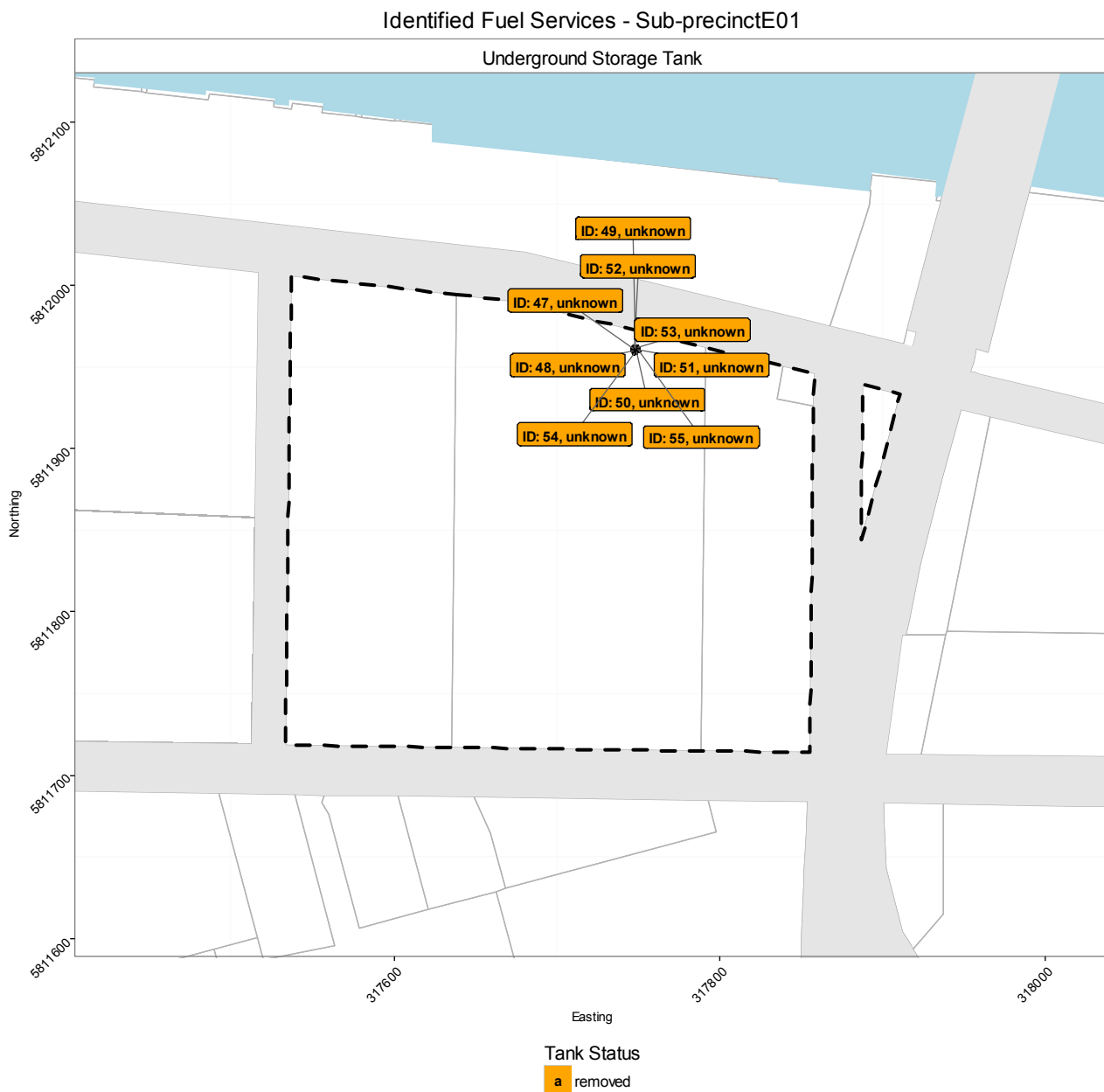
APPENDIX D1 SUB PRECINCT REVIEW OF LAND USE, GOODS AND SERVICES

Past and Present Land Use: Sub Precinct E13





APPENDIX D1 SUMMARY OF IDENTIFIED FUEL SERVICES





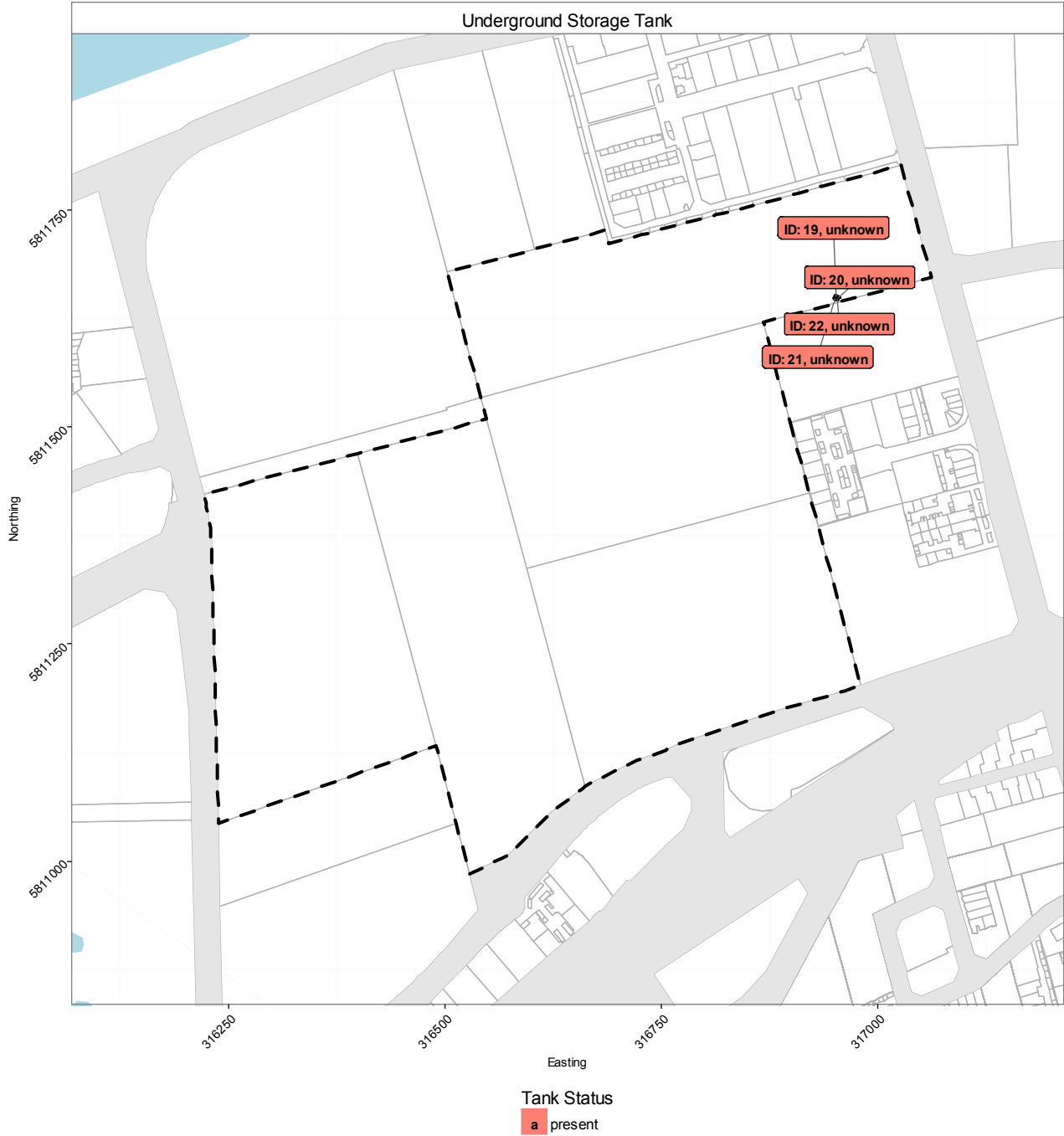
APPENDIX D1 SUMMARY OF IDENTIFIED FUEL SERVICES





APPENDIX D1 SUMMARY OF IDENTIFIED FUEL SERVICES

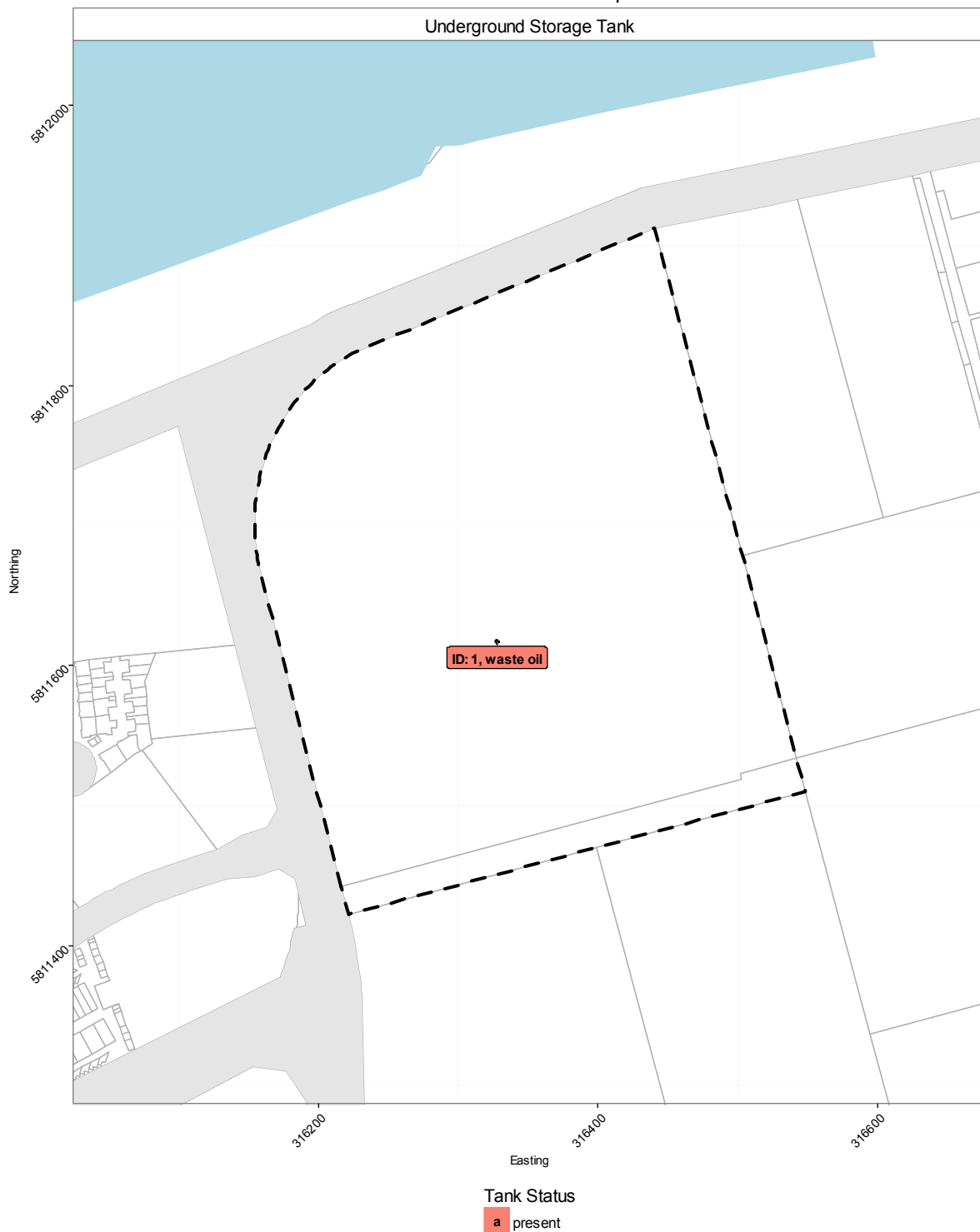
Identified Fuel Services - Sub-precinctE06





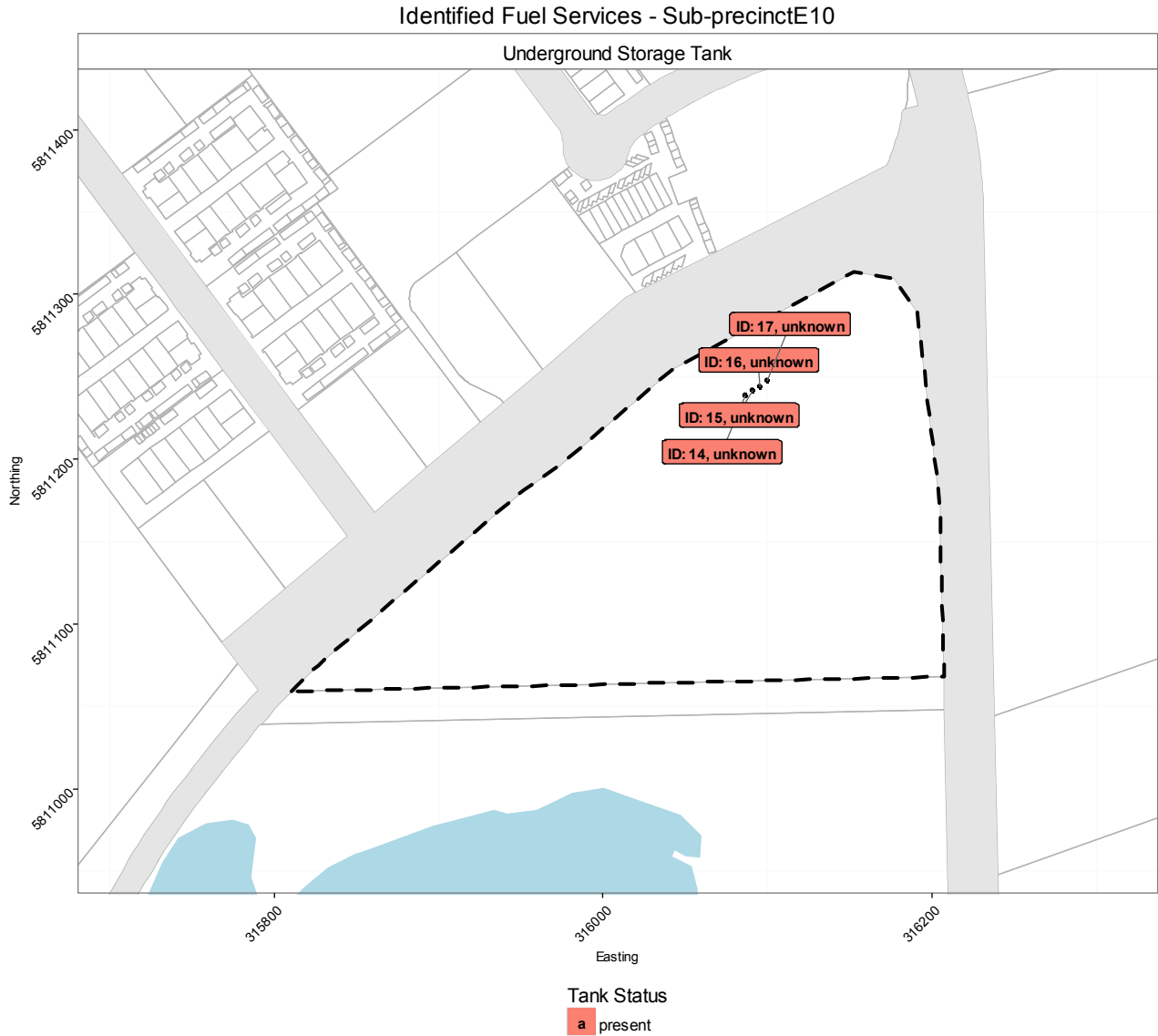
APPENDIX D1 SUMMARY OF IDENTIFIED FUEL SERVICES

Identified Fuel Services - Sub-precinctE08





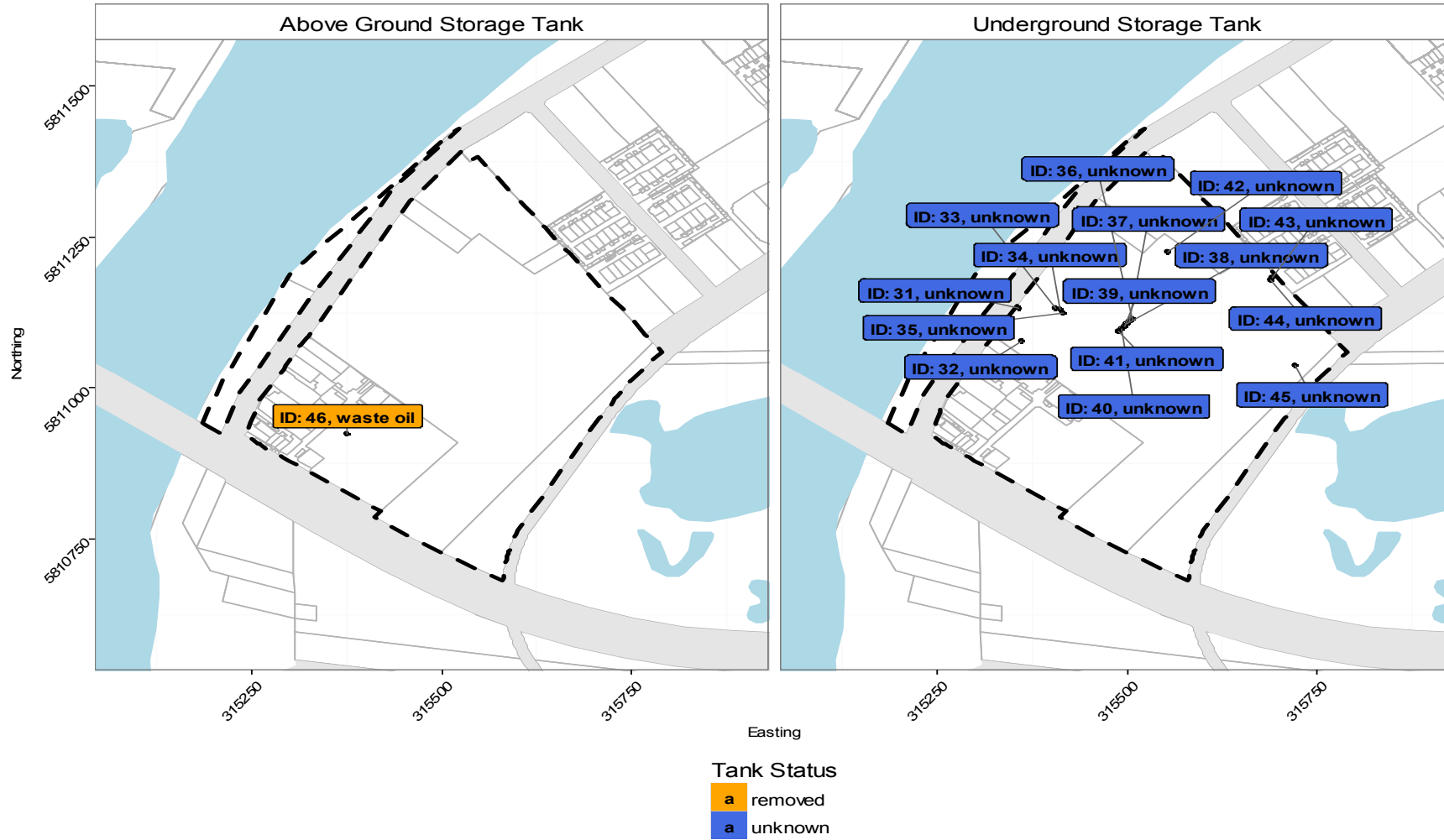
APPENDIX D1 SUMMARY OF IDENTIFIED FUEL SERVICES





APPENDIX D1 FUEL SERVICES

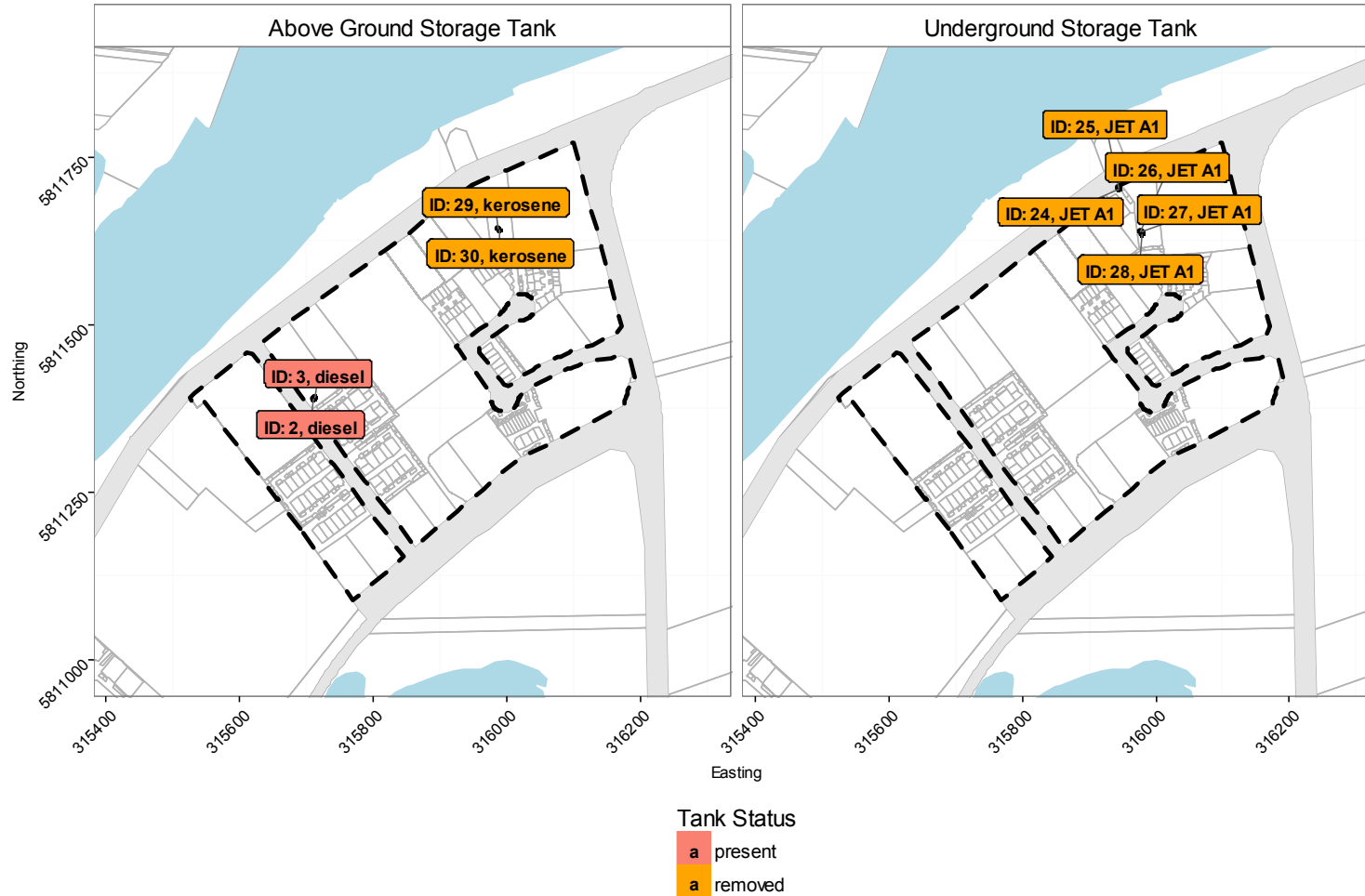
Identified Fuel Services - Sub-precinctE11





APPENDIX D1 FUEL SERVICES

Identified Fuel Services - Sub-precinctE12



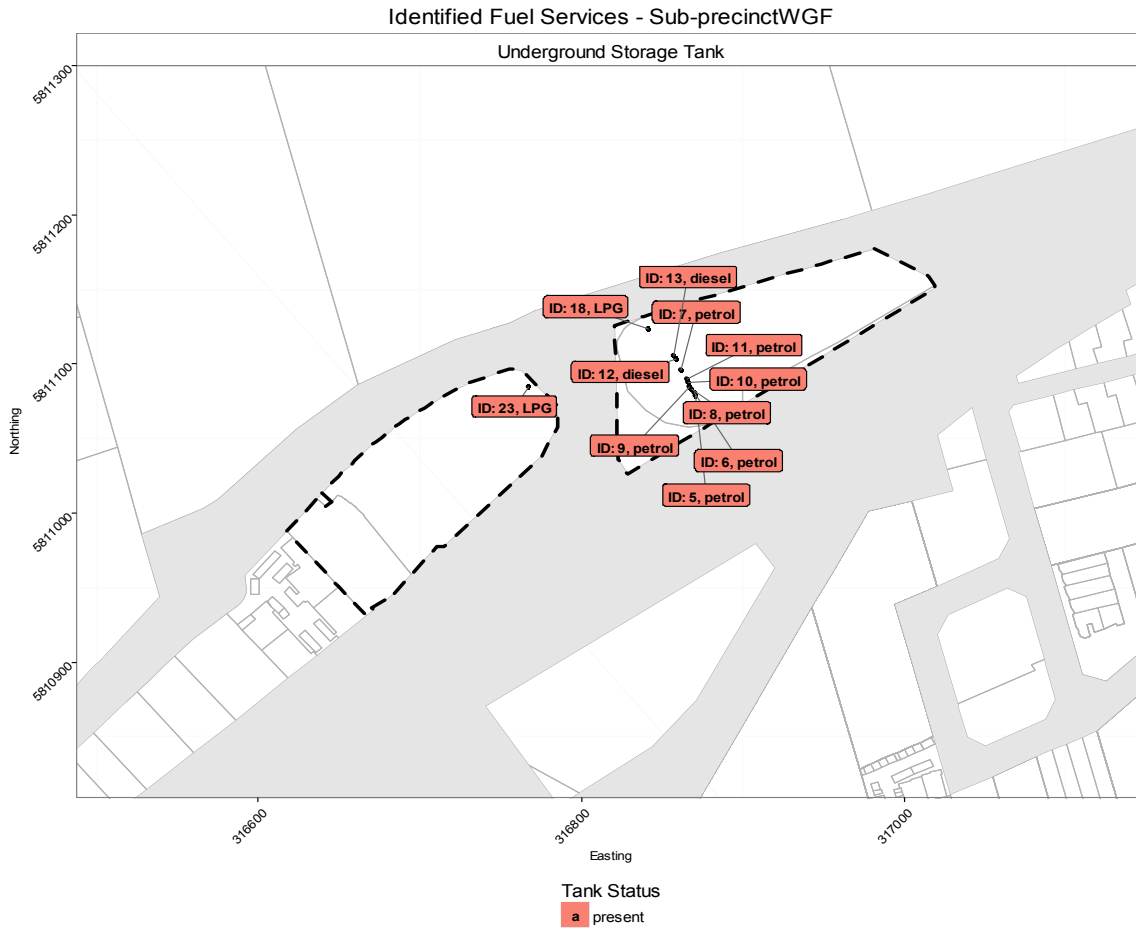


APPENDIX D1 FUEL SERVICES





APPENDIX D1 FUEL SERVICES



NOTE: The tanks identified above are for from service stations located just south of the Study Area in the Westgate Freeway (WGF). These have been included due to a pollution abatement notice (notice no.0090006663) currently in place on the service station to the right of the exit ramp.

Fishermans Bend Contamination Study
Appendix D1 - Summary of Identified Fuel Services
DELWP
1654703

Tank ID	type	Sub precinct	company	liquid	volume.L.	tank.type	year_inst	year_rmvd	status	source	material	comment	easting	northing
1	UST	E08	ARL/DSTO	waste oil	5000	NA	1983	NA	present	enregy safe, volume an estimate from diagram dimensions	metal	NA	316328	5811617
2	AST	E12	NBN	diesel	30000	NA	NA	NA	present	driveby, volume estimated, ASTs in shipping container	metal	with bowser and stored in bund	315711	5811389
3	AST	E12	NBN	diesel	30000	NA	NA	NA	present	driveby, volume estimated, stored in shipping container box	metal	NA	315713	5811392
4	AST	E02	Boral	diesel	2000	NA	NA	NA	present	drive by	metal	NA	317160	5811734
5	UST	WG Freeway	Shell	petrol	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316870	5811079
6	UST	WG Freeway	Shell	petrol	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316870	5811081
7	UST	WG Freeway	Shell	petrol	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316862	5811096
8	UST	WG Freeway	Shell	petrol	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316868	5811083
9	UST	WG Freeway	Shell	petrol	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316867	5811085
10	UST	WG Freeway	Shell	petrol	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316866	5811087
11	UST	WG Freeway	Shell	petrol	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316866	5811090
12	UST	WG Freeway	Shell	diesel	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316859	5811103
13	UST	WG Freeway	Shell	diesel	NA	type 42	NA	NA	present	energy safe, type 42 tanks	unknown	NA	316857	5811106
14	UST	E10	HWT	unknown	NA	type 5	1991	NA	present	energy safe	unknown	NA	316087	5811239
15	UST	E10	HWT	unknown	NA	type 5	1991	NA	present	energy safe	unknown	NA	316091	5811242
16	UST	E10	HWT	unknown	NA	type 5	1991	NA	present	energy safe	unknown	NA	316096	5811244
17	UST	E10	HWT	unknown	NA	type 5	1991	NA	present	energy safe	unknown	NA	316100	5811247
18	UST	WG Freeway	Shell	LPG	65000	NA	1987	NA	present	energy safe	metal	NA	316841	5811123
19	UST	E06	GMH	unknown	NA	type 20	1988	NA	present	energy safe, tanks are 100m from Salmon street (approx) not clear where	metal	NA	316952	5811650
20	UST	E06	GMH	unknown	NA	type 20	1988	NA	present	energy safe, tanks are 100m from Salmon street (approx) not clear where	metal	NA	316955	5811650
21	UST	E06	GMH	unknown	NA	type 20	1988	NA	present	energy safe, tanks are 100m from Salmon street (approx) not clear where	metal	NA	316950	5811648
22	UST	E06	GMH	unknown	NA	type 20	1988	NA	present	energy safe, tanks are 100m from Salmon street (approx) not clear where	metal	NA	316953	5811647
23	UST	WG Freeway	Coles Expressway	LPG	NA	NA	2015	NA	present	energy safe, new service station, other USTs non-metalic	metal	NA	316767	5811084
24	UST	E12	ASTA Facilities	JET A1	56400	NA	1960	1995	removed	AUDIT 32409-2	metal	tank D	315945	5811701
25	UST	E12	ASTA Facilities	JET A1	56400	NA	1960	1995	removed	AUDIT 32409-2	metal	tank E	315945	5811703
26	UST	E12	ASTA Facilities	JET A1	2350	NA	1960	1995	removed	AUDIT 32409-2	metal	tank A	315978	5811638
27	UST	E12	ASTA Facilities	JET A1	47000	NA	1960	1995	removed	AUDIT 32409-2	metal	tank B	315980	5811639
28	UST	E12	ASTA Facilities	JET A1	47000	NA	1960	1995	removed	AUDIT 32409-2	metal	tank C	315979	5811635
29	AST	E12	ASTA Facilities	kerosene	47000	NA	1960	1995	removed	AUDIT 32409-2	metal	tank DG11	315985	5811644
30	AST	E12	ASTA Facilities	kerosene	47000	NA	1960	1995	removed	AUDIT 32409-2	metal	tank DG12	315987	5811641
31	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315357	5811132
32	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315361	5811077
33	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315406	5811132
34	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315412	5811130
35	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315415	5811124
36	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315507	5811113
37	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315502	5811110
38	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315499	5811106
39	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315496	5811102
40	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315493	5811098
41	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315488	5811094
42	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315553	5811226
43	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315692	5811183
44	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315688	5811178
45	UST	E11	Boeing	unknown	NA	NA	NA	NA	unknown	audit report 73239-1	unknown	NA	315720	5811037
46	AST	E12	ASTA	waste oil	NA	NA	NA	1995	removed	AUDIT 32409-1b	unknown	NA	315377	5810923
47	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317747	5811961
48	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317747	5811960
49	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317748	5811961
50	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317749	5811959
51	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317750	5811961
52	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317748	5811962
53	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317750	5811962
54	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317748	5811959
55	UST	E01	Mytton Rodd	unknown	NA	NA	NA	1995	removed	AUDIT REPORT 42748-2B p.504	unknown	unknown about removal details	317751	5811960
56	UST	South Wharf	Pier 35 Fuel Wharf	unknown	NA	NA	NA	NA	present	driveby; location of fuel storage unknown	unknown	NA	315729	5811632



BACKGROUND

A regulatory review was undertaken, comprising a search of EPA Priority Sites Register and EPA list of properties for which a certificate or statement of environmental audit has been issued. The purpose of the search was to identify properties of which EPA has knowledge that might be, or have been a source of soil and / or groundwater contamination within and adjacent to the Employment Precinct. In addition, information for sites was reviewed where environmental sites assessments were either in the public records or made available for the purposes of this report.

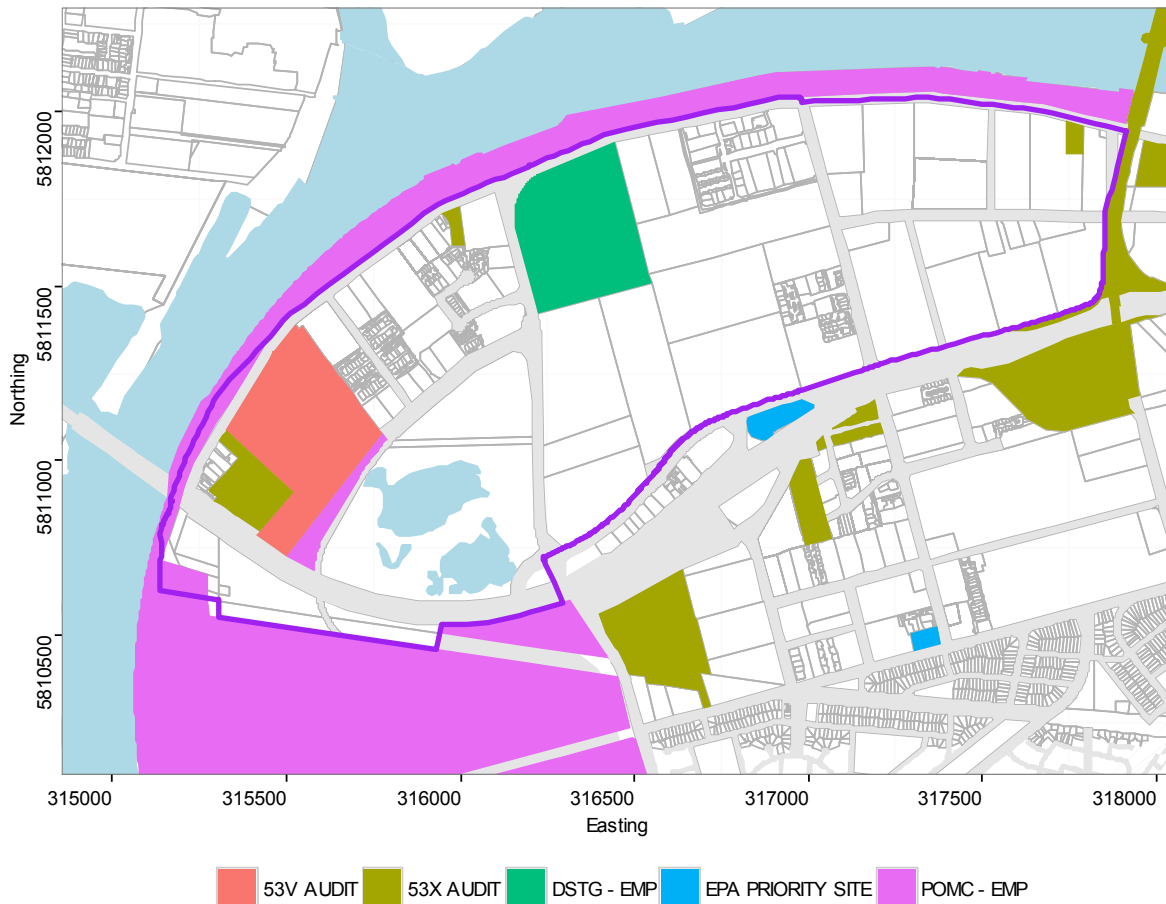


Figure D2 - 1: Redeveloped sites and those with available environmental reports. Redeveloped since 1990s. The year 1990 used as a benchmark since from 1990 onwards EPA began to oversee regulation of industrial sites in Victoria.

PRIORITY SITES REGISTER

Priority Sites are sites for which the Environment Protection Authority (EPA) Victoria has issued a Clean-up Notice pursuant to Section 62A or a Pollution Abatement Notice (relevant to land and/or groundwater) pursuant to Section 31A or 31B of the Victorian Environment Protection Act 1970. Typically, these are sites where pollution of land and/or groundwater may present an unacceptable risk to human health &/or to the environment. EPA maintains the Priority Sites Register as a listing of all priority sites identified by the EPA as requiring clean up. The Register is available to the public. It is important to note that the Priority Sites Register is not a listing of all contaminated sites in Victoria, nor is it a list of all contaminated sites of which EPA has knowledge.

As at June 2016, only one Priority Site was located just south of the Fisherman’s Bend Employment Precinct at 2 West Gate Freeway, Port Melbourne (notice no.0090006663) and listed as “Current Service Station. Requires assessment and/or clean up”). The site is currently an active service station, and recently a second service station has been installed across the road. A second priority site is located along Williamstown Road, and was also a former service station (notice no.0090006428); in addition this site is still an active service station.

An extract of the Priority Sites Register is included within this appendix.



ENVIRONMENTAL AUDITS

The Environmental Audit System was established in Victoria by the EPA as a means by which planning authorities, site owners, purchasers and others are provided with assurance regarding the condition of a property and its suitability for use, frequently in the context of site development.

Two types of audit are defined under Sections 53X and 53V the Environment Protection Act 1970, commonly known as 53X and 53V audits. 53X audits are used in the context of site developments under the planning system to assess a site for potential land contamination so land can be used for a specific use (industrial, commercial, or residential). A 53X audit will be issued with either a certificate or statement and be made publicly available. It is important to note that the list is not a register of all contaminated or cleaned sites in Victoria, but rather that it is a list of sites where a statutory audit has been completed. Additional sites may currently be undergoing statutory environmental audit however the EPA list only includes completed audits. A 53V ('risk of harm') audit is commonly used for operating facilities to enable the EPA to understand risks to both on-site and off-site receptors are posed by legacy and ongoing industrial site activity and determine / validate clean-up of soil and groundwater has occurred.

Copies of the audit reports within the precinct were reviewed and information relating to soil and groundwater contamination at each of the sites recorded. This information has been used to assist in developing the assumptions for the likely contamination risks for the Employment Precinct. A summary of the audit reports reviewed and the associated findings is included within this appendix.



LEGISLATION AND POLICY

Environment Protection Act

The primary legislation is the *Environment Protection Act 1970* (The Act), which creates the legislative framework to protect the environment. It sets environmental objectives for water land and air and mechanisms for regulation of the discharges to these elements of the environment. The *Environment Protection Act 1970* establishes a number of subordinate policies and regulations.

State Environment Protection Policies

State Environment Protection Policies (SEPPs) are subordinate instruments to the Act, and set out policies to establish environmental quality objectives. The SEPPs establish the 'beneficial uses' and values that are to be protected in different segments of the environment. 'Beneficial use' is described as a use of the environment or any element or segment of the environment which is conducive to public benefit, welfare, safety, health or aesthetic enjoyment and which requires protection from the effects of waste discharges, emissions or deposits or of the emission of noise. Applicable to this report are the SEPPs that have been established for the protection of land, water and groundwater:

- The State Environment Protection Policy (Prevention and Management of Contaminated Land), 2002 (SEPP Land) establishes beneficial uses of land in Victoria and provides a mechanism for determining whether these uses are being protected, such as indicators and objectives for use in assessing impacts. Contamination concentrations are set for protection of beneficial uses (maintenance of ecosystems, human health, buildings and structures, aesthetics, production of food, flora and fibre). The SEPP Land applies to both historically contaminated land and current activities.
- The State Environment Protection Policy (Waters of Victoria) 1997 (SEPP Groundwater) sets the framework for government agencies, businesses and the community to work together to protect and rehabilitate Victoria's surface water environments.
- The State Environment Protection Policy (Groundwaters of Victoria) 1997 (SEPP Groundwater) is a policy which provides a framework for the protection of groundwater as well as the clean-up and management of polluted groundwater throughout Victoria. The policy defines the beneficial uses to be protected based on segments of the groundwater environment. The segments are based on the total dissolved solids (TDS) loading of the background groundwater within an aquifer unit.

Waste Management Regulation and Policies

Contaminated soil must be managed as a Prescribed Industrial Waste where they are to be removed from site. Producers of contaminated soil must categorise their waste into one of four categories, Category A, B, C or clean fill (EPA Publication IWRG621, 2009) (EPA, 2009). Descriptions of the threshold limit values (upper limits) of contaminants for these categories are outlined in EPA Publication IWRG621, Soil Hazard Categorisation and Management, dated June 2009. The options for the management of waste material in these categories are as follows:

- Category A – on-site remediation, off-site remediation or storage pending availability of treatment (i.e. immobilisation). Category A waste cannot be disposed to landfill, as there are currently no Victorian facilities licensed to accept Category A waste.
- Category B or Category C – on-site remediation, off-site remediation or disposal to a licensed facility.

Transport and disposal of Prescribed Industrial Waste is required to be carried out in vehicles licensed to carry such materials utilising EPA Waste Transport Certificates. Landfills accepting Prescribed Industrial Waste will have in place their own processes and procedures to assess the material being received.

One of the central concepts of waste management in Victoria is that of resource efficiency. The Act establishes the waste hierarchy for Victoria, which provides a list of preferences for waste management options. Subordinate legislation (Regulation and Policies) created under The Act for management of waste in Victoria are:



APPENDIX D2 LEGISLATION AND POLICY

- Environment Protection (Industrial Waste Resource) Regulations 2009, which the handling, management and disposal of prescribed industrial waste in Victoria (including contaminated soil) due to the potential risks that it poses to human health and the environment.
- Waste management policies (WMPs), which are designed to set statewide objectives and directions for waste management. Of particular relevance for the redevelopment of Fishermans Bend is the Industrial Waste Management Policy (Waste Acid Sulfate Soils).



Figure D2-1: Waste management hierarchy, source: Victorian EPA, <http://www.epa.vic.gov.au/your-environment/waste>

The regulations aim to assist in promoting reuse and recovery of wastes by establishing secondary beneficial use (SBR). SBR is defined as an input or raw material substitute in a commercial, industrial, trade or laboratory activity following any form of treatment or reprocessing. Once the notification is authorised by EPA, the material is managed as a product and exempt from the regulations. For example; a secondary beneficial reuse could apply to contaminated biosolid materials redirected for use as a road embankment construction material or growing medium resource.

The Policy Impact Statement related to SEPP Land (GoV 2002), states that in seeking to apply the principle of the waste hierarchy and in seeking to achieve the best practicable environmental outcome, the following should be noted:

1. There is a preference for on-site treatment or management above off-site treatment, provided an equivalent environmental outcome can be achieved.
2. Where on-site management of contaminated soil is proposed, any ongoing management requirements must be practicable in the context of the proposed land use.
3. There is a strong preference for management approaches that involve treatment of any contamination, such that the soil is suitable for reuse without ongoing management restrictions.

To achieve the higher options on the waste management hierarchy, treatment of contaminated soil is necessary and is clearly the management option preferred by policy. This and other factors will see greater emphasis placed on treatment in favour of the traditional disposal and containment methods that have been used for contaminated soil management over the last decade.

References

EPA, 2009. *Soil Hazard Categorisation and Management. EPA Industrial Waste Resource Guidelines (IWRG) 621*, Melbourne: Environmental Protection Authority.

EPA, 2011. *IWRG622.1 - Soil Remediation Technologies in Victoria*, Melbourne: Environmental Protection Authority.

GoV (1997). *State Environment Protection Policy (Groundwaters of Victoria)*, No S160 Wednesday 17 December 1997, Government of Victoria (GoV).

GoV (2002). *State Environment Protection Policy (Prevention and Management of Contamination of Land)*, June 2002, Government of Victoria (GoV).

GoV (2003). *State Environment Protection Policy (Waters of Victoria)*, No S107 Wednesday 4 June 2003, Government of Victoria (GoV).

FISHERMANS BEND CONTAMINATION STUDY

Appendix D2 - Review of Audit Reports

DELWP

1654703

Site Details							Site History				
Site Address	Area (m ²)	EPA CARMs No.	Year Audit Completed	Audit type	Environmental Segments Assessed	Audit Outcome	Historical Site Uses. <i>Note - does Audit identify issues at surrounding sites - e.g. presence of quarries?</i>	Site First Developed	Processes and Chemicals Used on Site	USTs or other process infrastructure?	Years of operation
Fisherman's Bend Employment Precinct:											
Bridgeside Business Park, Lorimer Street, Port Melbourne		32409-1	1998	53X	soil, groundwater	Statement	Government Aircraft Factory, Hawke De Haviland, Boeing Aerostructures Australia, SEC storage yard	1939	heavy metals, VOC, SVOC, PCB, TPH, cyanide, PAH	former USTs and pits on site	1939 - 1995
Boeing Aerostructure Australia, 226 Lorimer Street, Port Melbourne	14.5	73239-1	2015	53v	groundwater, soil vapour	audit completed	Government Aircraft Factory, Hawke De Haviland, Boeing Aerostructures Australia	1939	TRH, solvents, MEK, CVOC, TCE, PCE, acids, cyanides, dyes, resins, dioxane,	numerous assets, tanks USTs, pits. Detailed maps provided.	1939 to present
BMW Workshop, 770 Lorimer Street, Port Melbourne	0.5	42748-2	2003	53X	soil, groundwater	Statement	Former foundry, currently a BMW workshop	1940s	engineering works, mechanics, storage yard	former USTs on site (6 to 9)	1995?
Aquatica Business Park, 332 - 344 Lorimer Street, Port Melbourne	0.6	32409-2	1998	53X	soil, groundwater	Statement	former ASTA jet engine testing facility, part of the Commonwealth Aircraft Corporation	1954	jet fuel, kerosene, waste oils, solvents, PCB	5 USTs within audit area; 2 USTs just outside audit area. ASTs may have been on site but removed prior to the audit.	1954-1995
DSTO, Radioactive decontamination of the Aeronautical Research Laboratory, Lorimer Street, Fishermans Bend	13 ha	NA	Nov-90	non-audit	Soil	Non audit assessment	Industrial scale research projects involved the separation and concentration of radioactive ores. Radioactive wastes were subsequently buried on site with contamination to some buildings and drainways.	1930's	radiological waste	Not considered	1939 - present
CitiLink		33298-9	1999	53X	soil, groundwater	Statement	various industrial sites	1940s	engineering works, storage yards, factories, sand mine, landfill	Not specifically identified.	various, long site for road construction. CitiLink built in 1990s.

FISHERMANS BEND CONTAMINATION STUDY

Appendix D2 - Review of Audit Reports

DELWP

1654703

Site Details					Soil		Natural Soils	Quality/ Category of Fill and Natural Soils	Potential for Contaminated Soil (i.e. following site clean up if undertaken)
Site Address	Area (m ²)	EPA CARMs No.	Year Audit Completed	Audit type	Fill Type	Fill Depth (m)			
Fisherman's Bend Employment Precinct:									
Bridgeside Business Park, Lorimer Street, Port Melbourne		32409-1	1998	53X	sand, gravel, building rubble	generally up to 0.4m; in some areas up to 2m.	Port Melbourne sands	Soil samples collected beneath / adjacent buildings. Soil quality assessed for Commercial / Industrial beneficial use (BU). Classified as Low Level Contaminated soils (LLC) (old guidelines).	Site recommended to be covered by hardstand or 0.5m of clean soil for garden beds. Soil concentrations met NEHF guidelines.
Boeing Aerostructure Australia, 226 Lorimer Street, Port Melbourne	14.5	73239-1	2015	53v	sandy gravel, silty sand and sand	up to 1-2mbgl	Port Melbourne sands	Screening and deliniation of soil impacts was beyond the scope of the audit. Current and historic sold investigations were reviewed to provide direction for managemnt of groundwater and soil vapour issues.	not assessed.
BMW Workshop, 770 Lorimer Street, Port Melbourne	0.5	42748-2	2003	53X	various types of fill including sand, clay, rubble, gravel, foundry slag, brock fragments, charcoal;	max 1.7m; clean fill (to 0.5m) imported for garden beds	Port Melbourne sands	Surface soils at the site contained contamination in the form of metals and PAHs (associated with fill). Soil quality assessed for Commercial / Industrial beneficial use (BU). Site remediated to this level for removal of BaP. Site considered satisfactory for Commercial / Industrial BU.	See previous. Areas of exposed soils (e.g. For garden beds) require capping with 0.5m of clean fill.
Aquatica Business Park, 332 - 344 Lorimer Street, Port Melbourne	0.6	32409-2	1998	53X	sand, gravel, building rubble	generally up to 0.4m; in some areas up to 2m.	Port Melbourne sands	Soils contaminated from tanks was removed during demolition and decommissioning of tanks.	COI include TRH (jet fuel A1), solvents,PAH and heavy metals in fill. Excavations around USTs were adequately investigated.
DSTO, Radioactive decontamination of the Aerotautical Research Laboratory, Lorimer Street, Fishermans Bend	13 ha	NA	Nov-90	non-audit	not assessed; focus on radioactive materials	Not considered	Not considered	Not considered	The assessment details the identification and remediation of radioactive waste inline with a remediation target. Other chemicals were not assessed as part of this report.
CitiLink		33298-9	1999	53X	various types of fill including sand, clay, rubble, gravel, foundry slag, brock fragments, charcoal, concrete, wood, rubber ,domestic garbage, ash, coke , ascrap metal, founry sands, and other wastes.	up to 1.6mbgl at South Wharf, up to 6.7 m to in vicinity of former sand quarry.	Port Melbourne sands	Surface soils contained contamination in the form of metals and PAHs ,classified as Low Level Contaminated soils (LLC) (old guidelines) if removed from site. Replacement soils required for areas intended for gardens due to phytotoxicity.	Highly ontaminated soil was removed from site or, where appropriate, used fro landscaping such as the Graham Street raised mound. Area highly paved and developed for Citylink construction.

FISHERMANS BEND CONTAMINATION STUDY

Appendix D2 - Review of Audit Reports

DELWP

1654703

Site Details					Groundwater				Vapour	Outcomes	
Site Address	Area (m ²)	EPA CARMs No.	Year Audit Completed	Audit type	Bore details	Groundwater Level (m bgl and RL AHD m)	Groundwater flow direction	Potential for Contaminated Groundwater / Groundwater contamination plumes	Vapour issues?	Conditions Placed on Site by Statement of Audit	Other comments
Fisherman's Bend Employment Precinct:											
Bridgeside Business Park, Lorimer Street, Port Melbourne		32409-1	1998	53X	6 Groundwater wells at the site. Up to 4m bgs.	between 1m to 1.5mbgl	NW toward the Yarra River	Groundwater impacted with arsenic, TPH and VOCs. Concentrations in groundwater within guidelines for beneficial stock use. However, only shallow groundwater investigated. TCE is a DNAPL and was not investigated at depth. GW concentrations met NEPM guidelines.	Not considered	Statement of audit issued subject to conditions of restricted access to soil and groundwater for ongoing site use as industrial /commercial.	
Boeing Aerostructure Australia, 226 Lorimer Street, Port Melbourne	14.5	73239-1	2015	53v	numerous.	between 1.5m to 2mbgl	radial with a high point on site. Flow toward the Yarra, Westgate Park and influenced by sewer lines in the area due to shallow groundwater levels.	Groundwater not assessed as posing an unacceptable risk to beneficial uses. Groundwater extraction is restricted. A Groundwater Management Plan is in place. COI previously listed. profiling of solvent beneath site using MIP; high detail in delineation.	Uncertainties regarding some vapour issues from solvents in groundwater in some office locations. Site unlikely to present a chronic risk; ongoing monitoring to be undertaken.	audit completed. Ongoing vapour monitoring and groundwater management plan in place as site active industrial facility.	
BMW Workshop, 770 Lorimer Street, Port Melbourne	0.5	42748-2	2003	53X	4 groundwater wells	between 2m to 2.5mbgl	north toward the Yarra River	Groundwater concentrations for heavy metals exceed ecological maintenance criteria for the Yarra River, however the auditor notes the site should remain sealed to minimise leaching of metals into groundwater. Groundwater is deeper than fill; metal concentrations do not exceed screening levels for groundwater.	Not considered	Statement of Audit issued. Land suitable for intended development purpose of Commercial/Industrial. Use subject to the following conditions: 1 - access to the fill should be minimised with placement of a barrier, such as 0.5m clean "fill" for garden beds. 2 - Coverage be maintained to minimise infiltration of rainwater.	Site still being used for BMW workshop.
Aquatica Business Park, 332 - 344 Lorimer Street, Port Melbourne	0.6	32409-2	1998	53X	2 groundwater wells to 3.5mbgl.	between 1m to 1.5mbgl	north toward the Yarra River	Uncertainty as only a limited number of groundwater wells installed to adequately delineate groundwater at the site. While identifies concentrations were within guideline, current best practice would involve high detail delineation. COI include TRH (jet fuel A1) and solvents. However, only shallow groundwater investigated. TCE is a DNAPL and was not investigated at depth.	Not considered	Statement of audit issued subject to the following conditions (site suitable for commercial / industrial) provided the site is covered by concrete slabs, buildings, paved car parks and garden beds with at least clean imported 300mm top soil over weedmat.	Tank D & E reported to have not leaked (beyond audit area); Tanks A,B,C some leakage (within audit area).
DSTO, Radioactive decontamination of the Aeronautical Research Laboratory, Lorimer Street, Fishermans Bend	13 ha	NA	Nov-90	non-audit	Not considered	Not considered	Not considered	Not considered	Not considered	Remediation undertaken to allow ARL to occupy the site from the CSIRO. Radioactive wastes were removed above a remedial investigation set at background levels of radiation for the area. Small areas of contamination identified as remaining beneath buildings. in total 1300 tonnes of soil and contaminated materials removed from site.	DSTO actively manage the site using a risk based environmental management plan which includes radiological contamination in conjunction with fuels, solvents and heavy metals in both soil and groundwater.
CitiLink		33298-9	1999	53X	wells along Graham Street	between 2m to 2.6mbgl	north toward the Yarra River	Heavy metals exceedences identified . Remediation not considered necessary to protect BU of Yarra River.	Not considered	Statement issued for ongoing use as an industrial / special use zone (i.e. freeway).	Purpose of audit to manage contamination issues and movement of contaminated soil during construction of CitiLink.

FISHERMANS BEND CONTAMINATION STUDY

Appendix D2 - Review of Audit Reports

DELWP

1654703

Site Details							Site History				
Site Address	Area (m ²)	EPA CARMs No.	Year Audit Completed	Audit type	Environmental Segments Assessed	Audit Outcome	Historical Site Uses. <i>Note - does Audit identify issues at surrounding sites - e.g. presence of quarries?</i>	Site First Developed	Processes and Chemicals Used on Site	USTs or other process infrastructure?	Years of operation
Plummer Street Precinct to South (focus on groundwater and landfill depths):											
Melbourne Grammar, Todd Road (Cnr Williamstown Road)	6.9 ha	37104-1	5/11/1999	57AA	Soil, groundwater and landfill gas	Statement	Prior to 1930's there is no information. From the 1930's to the 1960's the site was used for sand mining and as a municipal tip (concurrent). During the mid 1960's all previously dumped materials were removed and sand mining recommenced with the pit reaching a depth of around 8m. In the 1970's tipping recommenced, which continued until the early 1990's. The tip was largely municipal and industrial waste although some council waste (i.e. street sweepings etc) were disposed of at the site. At cessation of dumping, the waste was estimated to be approx. 1 - 2m above ground level. The site was largely capped with imported soil between 1991 and 1994 although some areas were left uncovered.	1930's	Sand mining and landfill. CoC include: Metals, TPH, MAH / BTEX, phenols, VHC / VHH, PCB's, PAH's, CN, OC's and OP's, methane from landfill gas generation	Not specifically identified.	Approx. 1930's until early 1990's
Lot 1B 69-119 Salmon Street Port Melbourne	2.3 ha	38456-3	11/10/1999	57AA	Soil, groundwater and landfill gas	Statement	Sand quarry and landfill. No details provided in audit report	Not identified	Sand mining and landfill. CoC include: Metals, TPH, MAH / BTEX, phenols, VHC / VHH, PCB's, PAH's, CN, OC's and OP's, methane from landfill gas generation	Not specifically identified.	Not identified
Lot 1A 69-119 Salmon Street, Port Melbourne	5.2 ha	38456-1 (website)	21/09/1999	57AA	Soil, groundwater and soil gas	Statement	Various government uses largely associated with warehouses and storage facilities. A fuel storage depot was noted.	1960's	CoC included: Metals, PAH, TRHs, BTEX, OC's and OP's, organic acids, ammonia and sulphides from nearby landfill and fill materials. Aluminium and fluoride fallout from nearby processing plant	3 UST's identified. Water filled at the time of investigation	Not identified - likely 30 - 40 years
Lot 2 69-119 Salmon Street, Port Melbourne	1.3 ha	38456-2	29/07/1999	57AA	Soil and groundwater	Statement	Various buildings leased by the Coastal Investigations Unit. At the time of the site history investigation the site was leased by Gunnerson's and used for timber storage yard and possibly treatment. Site was known to have been filled prior to 1945 as part of land reclamation works in the area.	1960's	CoC included: Metals and PAH from fill materials, TRH's, BTEX and pb associated with fuels and metals associated with timber presentation. Aluminium and fluoride fallout from nearby processing plant	Not specifically identified.	Not identified - likely 30 - 40 years
Lorimer Street Precincts to East (focus on groundwater):											
844-846 Lorimer Street, Port Melbourne	0.17 ha (part of a 2.5 ha site)	49997-1	11/07/2006	53X	Soil and groundwater	Statement	Golf club (pre world war 2), service station (ceased operations 2002). Makes reference to industry and fill in the surrounding area.	Not identified	TPH, BTEX, VHC's, Metals (also tested for PCBs, Ocs / Ops, Phenols, Cyanide and Fluoride)	Yes, (5 UST's identified and associated infrastructure)	Not identified

FISHERMANS BEND CONTAMINATION STUDY

Appendix D2 - Review of Audit Reports

DELWP

1654703

Site Details					Soil				
Site Address	Area (m ²)	EPA CARMs No.	Year Audit Completed	Audit type	Fill Type	Fill Depth (m)	Natural Soils	Quality/ Category of Fill and Natural Soils	Potential for Contaminated Soil (i.e. following site clean up if undertaken)
Plummer Street Precinct to South (focus on groundwater and landfill depths):									
Melbourne Grammar, Todd Road (Cnr Williamstown Road)	6.9 ha	37104-1	5/11/1999	57AA	Fill material (capping layer) consisting of up to 8m silty clayey sands. Fill below 3m contained an assortment of waste materials from household waste to car bodies etc.	Up to 8m bgs	Port Melb. Sands generally between 8 -12m bgs. Coode Island Silt generally between 12 - 33m bgs. Morey Street Gravels generally between 33 - 45m bgs.	Fill soils prior to capping were highly variable and contained a variety of contaminants at concentrations exceeding the adopted criteria including: metals (lead, arsenic, copper and zinc), TPH, PAH, phenols and OC's. Post capping the audit was of the opinion that soils were still unacceptably contaminated (particularly with Cu, pb, zn and PAH) and required further capping.	The audit concludes that the site is unacceptable for sensitive uses (low to med density residential, childcare, pre-school, primary school) in its current status but that it is suitable for open parklands / recreation, as long as contaminant issues are managed appropriately.
Lot 1B 69-119 Salmon Street Port Melbourne	2.3 ha	38456-3	11/10/1999	57AA	Fill material up to 11m bgs. Contained a combination of sandy clay and a wide variety of waste materials. Black discolouration, hydrocarbon and sulphurous odours.	Up to 11m bgs.	Natural strata follows the general pattern above (Cnr Todd Rd) - specific depths not noted.	Surface soils contained contamination in the form of metals and PAHs above ANZECC B but below NEHF F human health guidelines. Classified as Low Level Contaminated soils (LLC) (old guidelines) if removed from site. Replacement soils required for areas intended for gardens due to phytotoxicity.	See previous. Areas of exposed soils (e.g. For garden beds) require capping with 0.5m of clean fill.
Lot 1A 69-119 Salmon Street, Port Melbourne	5.2 ha	38456-1 (website)	21/09/1999	57AA	Fill highly varied including: clays, silts, sands and gavels with ash, coke, bricks, wood and plaster.	Up to 0.5m bgs	Port Melb. Sands underlying the fill. Natural strata follows general pattern above (Cnr Todd Rd).	Surface soils at the site contained contamination in the form of metals and PAHs (associated with fill). Soils classified as LLC soil for off-site disposal. Replacement soils required for areas intended for gardens due to phytotoxicity.	See previous. Areas of exposed soils (e.g. For garden beds) require capping with 0.5m of clean fill.
Lot 2 69-119 Salmon Street, Port Melbourne	1.3 ha	38456-2	29/07/1999	57AA	Not specified, although likely to fit a similar profile as above (Lot 1A)	Up to 3m bgs	Not specified although likely to fit a similar profile as above (Lot 1A)	Site contains some contamination in the form of metals and PAH's associated with fill material.	See previous. Areas of exposed soils (e.g. For garden beds) require capping with 0.5m of clean fill.
Lorimer Street Precincts to East (focus on groundwater):									
844-846 Lorimer Street, Port Melbourne	0.17 ha (part of a 2.5 ha site)	49997-1	11/07/2006	53X	Sand, crushed rock, silt, sandy clay and some rubble	Ranging from 0.3 to 1.3m below ground surface (bgs)	Clayey Silt to Silty Clay	Soil quality largely assessed to Human Health guidelines protective of Commercial / Industrial beneficial use (BU). Site remediated to this level with the exception of one area outside the audit area. Site considered satisfactory for Commercial / Industrial BU.	Some residual VHC's identified at the site outside the audit area. Auditor considers that it was acceptable to leave in-situ.

FISHERMANS BEND CONTAMINATION STUDY

Appendix D2 - Review of Audit Reports

DELWP

1654703

Site Details					Groundwater			Vapour	Outcomes		
Site Address	Area (m ²)	EPA CARMs No.	Year Audit Completed	Audit type	Bore details	Groundwater Level (m bgl and RL AHD m)	Groundwater flow direction	Potential for Contaminated Groundwater / Groundwater contamination plumes	Vapour issues?	Conditions Placed on Site by Statement of Audit	Other comments
Plummer Street Precinct to South (focus on groundwater and landfill depths):											
Melbourne Grammar, Todd Road (Cnr Williamstown Road)	6.9 ha	37104-1	5/11/1999	57AA	6 Groundwater wells at the site. Up to 3.5m bgs.	Between 2 to 3m bgl.	South to south west towards Hobsons Bay (potential mounding at site)	Contaminants above ANZECC 1992 Marine Ecosystems included: cu, pb, ni, zn and PAHs. TPH detected <25mg/L. Irrigation / Stockwater / Industrial / Protection of Aquatic Ecosystems / PCR BU's are precluded due to groundwater pollution. Concludes that the site has contributed to groundwater pollution although recognises there are a number of nearby sites that may have contributed.	While landfill gas (largely methane) was detected it was determined that this was diminishing and the no risk was posed by methane for the intended use of recreational playing fields (i.e. So long as no buildings were constructed over the site.)	Statement of audit was issued for the site subject to the following conditions: 1 - the site is suitable for open space use or industrial as long as (para phrased), the contamination status of the site is understood, recognised and appropriately managed by the developers / owners.	Site has since been developed into playing fields and associated pavilion infrastructure for / by Melbourne Gramma.
Lot 1B 69-119 Salmon Street Port Melbourne	2.3 ha	38456-3	11/10/1999	57AA	Approx. 11 on site. Depth not specified	Approx. 3m bgl.	Mounding on site. Flow to the north west appears to be affected by a cone of depression caused by groundwater remediation system at a service station facility to the north west. Flow also to the south west.	Groundwater at the site was contaminated with: PAHs, TRHs and metals with trace amounts of PCB, TCE and OC's. Report concludes groundwater at the site should not be extracted. Also notes that TRH contamination may have been influenced by the service station to the north west.	Low level risk due to the presence of landfill gas (diminishing). Indicates that measures to be put in place to reduce risks to workers when drilling / boring / excavating below surface level and for maintenance workers around ptis etc.	Statement of audit issued subject to the following conditions (site suitable for commercial / industrial): 1 - measures be taken during construction and maintenance to avoid risk associated with LFG. 2 - future owners / occupiers should be informed as to the contamination status of soils and GW and the presence of LFG at the site. 3 - Soil at the site is considered to be LLC soil and should be managed accordingly. 4 - Areas intended for use as gardens should be capped with 0.5m of clean fill or deeper for plants that might require it. 5 - No groundwater is to be extracted (owners / occupiers need to be informed of this). 6 - All groundwater bores on site should be decommissioned.	Site has since been developed into industrial / commercial (warehouse / office style buidlings) complex / estate.
Lot 1A 69-119 Salmon Street, Port Melbourne	5.2 ha	38456-1 (website)	21/09/1999	57AA	9 wells sampled (unclear as to whether these were all on site)	Not specified.	Not specified.	Concluded that while groundwater at the site was not contaminated, it would not be prudent to pump groundwater (particularly given its brackish characteristics) as this may create inflow of contaminated water from nearby sites.	No methane detected, although the soils near the western boundary (near Lot 1B) are oxygen deplete and carbon dioxide rich which represents an asphyxiation hazard.	Statement of audit issued subject to the following conditions (site suitable for commercial / industrial): 1 - Areas intended for use as gardens should be capped with 0.5m of clean fill or deeper for plants that might require it. 2 - surface soils may be classified as LLC soil and managed accordingly if removed from site. 3 - Future owners should be informed that the groundwater near the north western boundary of the site may be contaminated and that groundwater should not be extracted to avoid inflow of contaminated groundwater from off-site	Site has since been developed into industrial / commercial (warehouse / office style buidlings) complex / estate.
Lot 2 69-119 Salmon Street, Port Melbourne	1.3 ha	38456-2	29/07/1999	57AA	3 wells on site.	Not specified.	Not specified.	Cu, pb and PAH exceeded the ecosystem protection guidelines. However, the auditor concluded that the groundwater was unlikely to be polluted based on the likely BU.	Not considered	Statement of audit issued subject to the following condition (site suitable for commercial / industrial): 1 - Areas intended for use as gardens should be capped with 0.5m of clean fill or deeper for plants that might require it.	Site has since been developed into industrial / commercial (warehouse / office style buidlings) complex / estate.
Lorimer Street Precincts to East (focus on groundwater):											
844-846 Lorimer Street, Port Melbourne	0.17 ha (part of a 2.5 ha site)	49997-1	11/07/2006	53X	9 groundwater wells installed at site. Indicates 3m screens.	Approx. 2 - 2.8m bgl	Generally in a northerly direction (toward the Yarra). Some mounding around the main excavation.	Heavy metals exceedences identified (assumed to be regional). Elevated VHC's. Remediation not considered necessary to protect BU.	Not considered	Statement of Audit issued. Land suitable for intended development purpose of Commercial Use subject to the following conditions: 1 - access to the fill should be minimised with placement of a barrier, such as 0.5m clean "fill" or foundation slabs, paving etc. 2 - There should be no abstraction of groundwater at the site.	Site is currently vacant

PRIORITY SITES REGISTER

Information as at 31 May 2016

The Priority Sites Register is updated monthly and the information on it may not be accurate, current or complete and may be subject to change without notice.

EPA has a key responsibility in protecting beneficial uses of land. Many of these uses are regulated or controlled through a range of measures to prevent contamination of land and groundwater. Land contaminated by former waste disposal, industrial and similar activities is frequently discovered during changes to land use - for example, from industrial to residential use. In most cases these can be managed at the time that the change of land use occurs. Some sites however, present a potential risk to human health or to the environment and must be dealt with as a priority. Such sites are typically subject to clean-up and/or management under EPA directions.

WHAT ARE PRIORITY SITES?

Priority Sites are sites for which EPA has issued a Clean Up Notice pursuant to section 62A, or a Pollution Abatement Notice pursuant to section 31A or 31B (relevant to land and/or groundwater) of the *Environment Protection Act 1970*. Typically these are sites where pollution of land and/or groundwater presents a potential risk to human health or to the environment. The condition of these sites is not compatible with the current or approved use of the site without active management to reduce the risk to human health and the environment. Such management can include clean up, monitoring and/or institutional controls.

The Priority Sites Register does not list sites managed by voluntary agreements or sites subject to management by planning controls (e.g. sites managed in accordance with a section 173 agreement under the *Planning and Environment Act 1987*). Land purchasers should be aware of these limitations and make their own enquiries. A site is listed on the Priority Sites Register when EPA issues a Clean Up Notice or a Pollution Abatement Notice (relevant to land and/or groundwater). A notice is a means by which EPA formalises requirements to manage pollution. Sites are removed from the Priority Sites Register once all conditions of a Notice have been complied with. This is formalised through a Notice of Revocation pursuant to section 60B of the Act.

DISCLAIMER

Users of this site accept all risks and responsibilities for losses, damages, costs and other consequences resulting directly or indirectly from use of this site and information from it.

To the maximum permitted by law, the EPA excludes all liability to any person directly or indirectly from using this site and information from it.

FURTHER INFORMATION

Additional information is available from:

EPA Information Centre
200 Victoria Street
Carlton VIC 3053
1300 EPA VIC (1300 372 842)
www.epa.vic.gov.au

Municipality	Suburb	Address	Issue	Notice Number
Ararat Rural City Council	ARARAT	26 Grano ST	Former Industrial Site. Requires assessment and/or clean up.	0090001739
Ararat Rural City Council	ARARAT	Mclellan ST	Railway yard. Requires assessment and/or clean up.	0090001744
Ararat Rural City Council	ARARAT	Mclellan ST	Former Industrial Site. Requires assessment and/or clean up.	0090005943
Ballarat City Council	BALLARAT	Canadian Gully Reserve Geelong RD	Historical deposit of mine tailings. Requires assessment and/or clean up.	0090000494
Ballarat City Council	BALLARAT	1003 Humffray ST	Former Industrial Site. Requires assessment and/or clean up.	0090001857
Ballarat City Council	BALLARAT	Volume 6747 Folio 250	Current Industrial Site. Requires assessment and/or clean up.	0090001913
Ballarat City Council	WARRENHEIP	Ballarat-Burumbeet RD	Accidental spill/leak (non-industrial site). Requires ongoing management.	0090002430
Ballarat City Council	MOUNT CLEAR	3 WHITEHORSE RD	Former Landfill. Requires ongoing management.	0090003912
Ballarat City Council	MOUNT CLEAR	Whitehorse RD	Former Landfill. Requires assessment and/or clean up.	0090004206
Ballarat City Council	MOUNT CLEAR	Whitehorse RD	Former Landfill. Requires assessment and/or clean up.	0090004207
Ballarat City Council	BUNKERS HILL	856 Greenhalghs RD	Current Industrial Site. Requires ongoing management.	0090004647

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
Banyule City Council	GREENSBOROUGH	131 Grimshaw ST	Current Service Station. Requires assessment and/or clean up.	0090002585
Bass Coast Shire Council	WONTHAGGI	C/a 15 Section 58 Cameron St	Former Landfill. Requires ongoing management.	0090003536
Bass Coast Shire Council	RHYLL	309 COWES-RHYLL RD	Former Landfill. Requires ongoing management.	0090006861
Bass Coast Shire Council	RHYLL	309 COWES-RHYLL RD	Former Landfill. Requires ongoing management.	0090006862
Bayside City Council	CHELTENHAM	18 Hamlet ST	Current Industrial Site. Requires ongoing management.	0090001671
Bayside City Council	BRIGHTON	316 New ST	Former Service Station. Requires assessment and/or clean up.	0090003577
Brimbank City Council	DEER PARK	753 Tilburn RD	Contaminated soil is retained and managed onsite. Requires assessment and/or clean up.	0090000162
Brimbank City Council	SYDENHAM	362 SYDENHAM RD	Former Landfill. Requires assessment and/or clean up.	0090000921
Brimbank City Council	SUNSHINE NORTH	47 MCINTYRE RD	Former Industrial Site. Requires ongoing management.	0090001549
Brimbank City Council	DEER PARK	765 BALLARAT RD	Former Industrial Site. Requires assessment and/or clean up.	0090001886
Brimbank City Council	BROOKLYN	Bunting RD	Former Landfill. Requires ongoing management.	0090002743
Brimbank City Council	SUNSHINE	16 THIRD AV	Current Industrial Site. Requires assessment and/or clean up.	0090003227
Brimbank City Council	BROOKLYN	594 Geelong RD	Former Landfill. Requires ongoing management.	0090003478
Brimbank City Council	KEILOR DOWNS	Green Gully RD	Former Landfill. Requires ongoing management.	0090003524
Brimbank City Council	BROOKLYN	44 Mcdonald RD	Former Landfill. Requires ongoing management.	0090003591
Brimbank City Council	SYDENHAM	362 SYDENHAM RD	Former Landfill. Requires ongoing management.	0090003753
Brimbank City Council	SUNSHINE	6 FIRST AV	Illegal dumping. Requires assessment and/or clean up.	0090004622
Brimbank City Council	Sunshine North	56 Baldwin AV	Accidental spill/leak (non-industrial site). Requires assessment and/or clean up.	0090004879
Brimbank City Council	TULLAMARINE	6 Prima Court EISNER CT	Illegal dumping. Requires assessment and/or clean up.	0090005495
Buloke Shire Council	BIRCHIP	CA 53B-D Parish of Wirmbirchip, SUNRAYSIA HWY	Illegal dumping. Requires assessment and/or clean up.	0090005615
Campaspe Shire Council	BAMAWM EXTENSION	1133 ECHUCA-MITIAMO RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090001745
Campaspe Shire Council	KYABRAM	Graham RD	Former Landfill. Requires ongoing management.	0090003562
Campaspe Shire Council	KYABRAM	Graham RD	Former Landfill. Requires ongoing management.	0090003563
Campaspe Shire Council	ECHUCA	Echuca Landfill Echuca-Kyabram RD	Former Landfill. Requires ongoing management.	0090003568
Campaspe Shire Council	ECHUCA	Echuca Landfill Echuca-Kyabram RD	Former Landfill. Requires ongoing management.	0090003569
Campaspe Shire Council	DIGGORA	ODONNELL RD	Former Landfill. Requires ongoing management.	0090003588
Campaspe Shire Council	DIGGORA	ODONNELL RD	Former Landfill. Requires ongoing management.	0090006552
Cardinia Shire Council	PAKENHAM	570 Bald Hill Road	Former Landfill. Requires ongoing management.	0090003597
Casey City Council	NARRE WARREN	188 QUARRY RD	Former Landfill. Requires ongoing management.	0090003600
Central Goldfields Shire Council	CARISBROOK	129 WILLIAMS RD	Former Landfill. Requires ongoing management.	0090003566
Central Goldfields Shire Council	MARYBOROUGH	53 HIGH ST	Current Service Station. Requires assessment and/or clean up.	0090005850
Central Goldfields Shire Council	CARISBROOK	129 WILLIAMS RD	Former Landfill. Requires ongoing management.	0090006580
Colac-Otway Shire Council	COLAC	Bruce ST	Former Landfill. Requires ongoing management.	0090001464
Colac-Otway Shire Council	MARENGO	Roberts RD	Former Landfill. Requires ongoing management.	0090003634
Colac-Otway Shire Council	COLAC	Bruce ST	Former Landfill. Requires ongoing management.	0090003696
Corangamite Shire Council	GLENORMISTON	Terang-Mortlake RD	Former Landfill.	0090003621

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
Corangamite Shire Council	GLENORMISTON	Terang-Mortlake RD	Former Landfill. Requires ongoing management.	0090003622
Darebin City Council	PRESTON	67 High ST	Former Service Station. Requires assessment and/or clean up.	0090001449
Darebin City Council	PRESTON	194 Bell ST	Former Industrial Site. Requires assessment and/or clean up.	0090002088
Darebin City Council	NORTHCOTE	Clifton ST	Former Landfill. Requires ongoing management.	0090003493
Darebin City Council	RESERVOIR	87 Newlands RD	Former Landfill. Requires ongoing management.	0090003508
Darebin City Council	PRESTON	74 RAGLAN ST	Former Industrial Site. Requires assessment and/or clean up.	0090005520
Darebin City Council	PRESTON	62 Albert ST	Current Industrial Site. Requires ongoing management.	0090006171
East Gippsland Shire Council	ORBOST	44 Salsbury ST	Former Service Station. Requires assessment and/or clean up.	0090006188
East Gippsland Shire Council	BAIRNSDALE	68 GILES ST	Former Landfill. Requires ongoing management.	0090006577
Frankston City Council	Frankston	McClelland DR	Former Landfill. Requires ongoing management.	0090003594
Frankston City Council	FRANKSTON	3 ROSELLA ST	Current Industrial Site. Requires assessment and/or clean up.	0090006242
Frankston City Council	FRANKSTON SOUTH	4 GOLF LINKS RD	Current Service Station. Requires assessment and/or clean up.	0090006300
Glen Eira City Council	CAULFIELD SOUTH	371 Hawthorn RD	Former Service Station. Requires assessment and/or clean up.	0090001532
Glen Eira City Council	CAULFIELD SOUTH	818 Glen Huntly RD	Former Service Station. Requires assessment and/or clean up.	0090004221
Greater Bendigo City Council	MYERS FLAT	28 WILLIAMS RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090004173
Greater Bendigo City Council	White Hills	(Crown Allotment 432E Section E)	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090004649
Greater Bendigo City Council	WHITE HILLS	Crown Allotment 432E, Section E Parish of Sandhurst, Bendigo	Former Landfill. Requires ongoing management.	0090006184
Greater Bendigo City Council	Huntly	29 Caellis Road	Current Industrial Site. Requires assessment and/or clean up.	0090006353
Greater Dandenong City Council	SPRINGVALE SOUTH	East Side Of Clarke RD	Former Landfill. Requires ongoing management.	0090000608
Greater Dandenong City Council	DANDENONG SOUTH	Greens Road GREENS RD	Former Industrial Site. Requires ongoing management.	0090001391
Greater Dandenong City Council	SPRINGVALE	917 Princes HWY	Former Industrial Site. Requires assessment and/or clean up.	0090001557
Greater Dandenong City Council	SPRINGVALE SOUTH	East Side Of Clarke RD	Former Landfill. Requires ongoing management.	0090003693
Greater Dandenong City Council	SPRINGVALE SOUTH	169-222 Clarke Road	Former Landfill. Requires ongoing management.	0090003848
Greater Dandenong City Council	SPRINGVALE SOUTH	169-222 Clarke Road	Former Landfill. Requires ongoing management.	0090003850
Greater Dandenong City Council	DANDENONG	230 Frankston-Dandenong RD	Former Service Station. Requires assessment and/or clean up.	0090004119
Greater Dandenong City Council	DANDENONG SOUTH	185 Dandenong-Hastings RD	Former Landfill. Requires ongoing management.	0090004214
Greater Dandenong City Council	KEYSBOROUGH	151 CHAPEL RD	Land and/or groundwater impacted by intensive animal industry. Requires assessment and/or clean up.	0090005573
Greater Dandenong City Council	SPRINGVALE	310 Springvale RD	Current Service Station. Requires assessment and/or clean up.	0090006022
Greater Dandenong City Council	DANDENONG SOUTH	Greens Road GREENS RD	Current waste water treatment plant. Requires ongoing management.	0090006097
Greater Dandenong City Council	Bangholme	Cnr Thompson Road and Worsley Road	Current Industrial Site. Requires assessment and/or clean up.	0090006348
Greater Geelong City Council	CORIO	80 REFINERY RD	Current petroleum storage site. Requires ongoing management.	0090000024
Greater Geelong City Council	CORIO	Off Harpur RD	Former Service Station. Requires assessment and/or clean up.	0090000782

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
Greater Geelong City Council	LARA	Princes HWY	Accidental spill/leak (non-industrial site). Requires assessment and/or clean up.	0090001012
Greater Geelong City Council	GEELONG NORTH	1 Roseneath ST	Former chemical storage facility. Requires assessment and/or clean up.	0090001664
Greater Geelong City Council	DRYSDALE	97 High ST	Current Service Station. Requires ongoing management.	0090001808
Greater Geelong City Council	CORIO	83 Purnell RD	Current Service Station. Requires ongoing management.	0090002343
Greater Geelong City Council	CORIO	1500 BIDDLECOMBE AV	Current landfill. Requires assessment and/or clean up.	0090002361
Greater Geelong City Council	MANIFOLD HEIGHTS	35 Shannon AV	Former Service Station. Requires assessment and/or clean up.	0090004098
Greater Geelong City Council	NORTH GEELONG	343 MELBOURNE RD	Former Industrial Site. Requires assessment and/or clean up.	0090004124
Greater Geelong City Council	NORLANE	5 PRINCES HWY	Former Industrial Site. Requires assessment and/or clean up.	0090004126
Greater Geelong City Council	NORLANE	60 NORTH SHORE RD	Current Industrial Site. Requires assessment and/or clean up.	0090004132
Greater Geelong City Council	CORIO	80 REFINERY RD	Current Industrial Site. Requires assessment and/or clean up.	0090004215
Greater Geelong City Council	POINT HENRY	420 Point Henry RD	Former Industrial Site. Requires assessment and/or clean up.	0090005302
Greater Geelong City Council	BELMONT	180 Barwon Heads RD	Former petroleum storage site. Requires ongoing management.	0090005312
Greater Geelong City Council	GEELONG WEST	151 Church ST	Former Service Station. Requires ongoing management.	0090005443
Greater Geelong City Council	MOOLAP	132 POINT HENRY RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090005545
Greater Geelong City Council	LOVELY BANKS	225 STACEYS RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090005998
Greater Geelong City Council	BALLAN	1 6511 Western FWY	Current Service Station. Requires ongoing management.	0090006079
Greater Geelong City Council	CORIO	246 Princes HWY	Current petroleum storage site. Requires ongoing management.	0090006264
Greater Geelong City Council	GEELONG	Former South Geelong LANDFILL South & West of Geelong W'bool Railway L	Former Landfill. Requires assessment and/or clean up.	0090006355
Greater Geelong City Council	EAST GEELONG	101 HEARNE PDE	Gun, pistol or rifle range. Requires assessment and/or clean up.	0090006642
Greater Shepparton City Council	SHEPPARTON NORTH	280 Daldy RD	Former Industrial Site. Requires assessment and/or clean up.	0090001776
Greater Shepparton City Council	COSGROVE	205 COSGROVE-LEMNOS RD	Former Landfill. Requires ongoing management.	0090003551
Hepburn Shire Council	CRESWICK	18 Clunes RD	Former Service Station. Requires assessment and/or clean up.	0090000263
Hepburn Shire Council	CRESWICK	C/a 45a Parish Of Creswick County Of Talbot	Former Landfill. Requires ongoing management.	0090003560
Hepburn Shire Council	DAYLESFORD	47 RAGLAN ST	Current Service Station. Requires ongoing management.	0090004373
Hobsons Bay City Council	ALTONA	541 Kororoit Creek RD	Current chemical storage facility. Requires assessment and/or clean up.	0090000425
Hobsons Bay City Council	NEWPORT	Underground Section Of Petroleum Pipelines That Run Under Champion Rd	Current Industrial Site. Requires ongoing management.	0090000598
Hobsons Bay City Council	NEWPORT	Burleigh ST	Current petroleum storage site. Requires assessment and/or clean up.	0090001325
Hobsons Bay City Council	NEWPORT	Underground Section Of Petroleum Pipelines That Run Under Champion Rd	Current Industrial Site. Requires assessment and/or clean up.	0090001459
Hobsons Bay City Council	ALTONA MEADOWS	306 Queen ST	Current Service Station. Requires assessment and/or clean up.	0090002186
Hobsons Bay City Council	SOUTH KINGSVILLE	38 Blackshaws RD	Former Industrial Site. Requires ongoing management.	0090002381

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
Hobsons Bay City Council	WILLIAMSTOWN	12 SEAVIEW PDE	Current Industrial Site. Requires ongoing management.	0090002444
Hobsons Bay City Council	SPOTSWOOD	144 HALL ST	Current Industrial Site. Requires assessment and/or clean up.	0090003301
Hobsons Bay City Council	ALTONA	401 Kororoit Creek RD	Current Industrial Site. Requires assessment and/or clean up.	0090003368
Hobsons Bay City Council	ALTONA	QUEENS STREET	Former Landfill. Requires ongoing management.	0090003472
Hobsons Bay City Council	BROOKLYN	Hardie RD	Former Landfill. Requires ongoing management.	0090003487
Hobsons Bay City Council	ALTONA NORTH	Kyle RD	Former Landfill. Requires ongoing management.	0090003527
Hobsons Bay City Council	NEWPORT	Underground Section Of Petroleum Pipelines That Run Under Champion Rd	Current Industrial Site. Requires assessment and/or clean up.	0090005042
Hobsons Bay City Council	ALTONA	541 Kororoit Creek RD	Current Industrial Site. Requires assessment and/or clean up.	0090005374
Hobsons Bay City Council	SPOTSWOOD	512 Melbourne RD	Railway yard. Requires ongoing management.	0090005636
Hobsons Bay City Council	SPOTSWOOD	18 Drake ST	Former petroleum storage site. Requires assessment and/or clean up.	0090005771
Hobsons Bay City Council	SPOTSWOOD	512 Melbourne RD	Railway yard. Requires assessment and/or clean up.	0090006054
Hobsons Bay City Council	NEWPORT	411 DOUGLAS PDE	Current petroleum storage site. Requires assessment and/or clean up.	0090006202
Hobsons Bay City Council	SOUTH KINGSVILLE	22 New ST	Former Industrial Site. Requires assessment and/or clean up.	0090006705
Hobsons Bay City Council	SPOTSWOOD	29 FRANCIS ST	Current chemical storage facility. Requires assessment and/or clean up.	0090006713
Horsham Rural City Council	Longerenong	Corner of West and Centre Roads	Current Industrial Site. Requires assessment and/or clean up.	0090006354
Hume City Council	BULLA	315 Loemans RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090000177
Hume City Council	CAMPBELLFIELD	1735 Sydney RD	Current Industrial Site. Requires assessment and/or clean up.	0090002373
Hume City Council	CRAIGIEBURN	Craigieburn RD	Former Landfill. Requires ongoing management.	0090003107
Hume City Council	CAMPBELLFIELD	5 REO CR	Current Industrial Site. Requires assessment and/or clean up.	0090003276
Hume City Council	CRAIGIEBURN	Craigieburn RD	Former Landfill. Requires ongoing management.	0090003475
Hume City Council	CAMPBELLFIELD	Mahoneys RD	Former Landfill. Requires ongoing management.	0090003496
Hume City Council	TULLAMARINE	Western AV	Former Landfill. Requires ongoing management.	0090003530
Hume City Council	DIGGERS REST	65 EDWARDS RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090003640
Hume City Council	CAMPBELLFIELD	Bolinda RD	Former Landfill. Requires ongoing management.	0090003793
Hume City Council	CAMPBELLFIELD	Bolinda RD	Former Landfill. Requires ongoing management.	0090003794
Hume City Council	CAMPBELLFIELD	26 GLENBARRY RD	Illegal dumping. Requires assessment and/or clean up.	0090003863
Hume City Council	Tullamarine	105 ANNANDALE RD	Illegal dumping. Requires assessment and/or clean up.	0090004149
Hume City Council	CAMPBELLFIELD	2 8 REO CR	Former chemical storage facility. Requires assessment and/or clean up.	0090004284
Hume City Council	CAMPBELLFIELD	29 HALLEY CR	Illegal dumping. Requires assessment and/or clean up.	0090004877
Hume City Council	SUNBURY	45 DEVERALL RD	Illegal dumping. Requires assessment and/or clean up.	0090005274
Hume City Council	CAMPBELLFIELD	2 8 REO CR	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090005565
Hume City Council	Tullamarine	105 ANNANDALE RD	Former Landfill. Requires assessment and/or clean up.	0090005586
Hume City Council	DIGGERS REST	250 DUNCANS LANE	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006005

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
Hume City Council	WILDWOOD	420 WILDWOOD RD	Illegal dumping. Requires assessment and/or clean up.	0090006345
Hume City Council	SOMERTON	70 CLIFFORDS RD	Former Industrial Site. Requires ongoing management.	0090006704
Hume City Council	CAMPBELLFIELD	2 8 REO CR	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006744
Kingston City Council	MOORABBIN	1 10 Ebden ST	Former Industrial Site. Requires ongoing management.	0090002273
Kingston City Council	CLAYTON SOUTH	RYANS and DEALS RD	Former Landfill. Requires ongoing management.	0090003604
Kingston City Council	CLAYTON SOUTH	Clayton and Ryans RD	Former Landfill. Requires ongoing management.	0090003607
Kingston City Council	CLAYTON SOUTH	8 Elder ST	Former Landfill. Requires ongoing management.	0090003610
Kingston City Council	CHELSEA	Scotch PDE	Former Landfill. Requires ongoing management.	0090003613
Kingston City Council	CLAYTON SOUTH	623 HEATHERTON RD	Former Landfill. Requires assessment and/or clean up.	0090003855
Kingston City Council	DINGLEY VILLAGE	Spring Road & Rowan Road (As per Annexure A in PAN 90003857)	Former Landfill. Requires assessment and/or clean up.	0090003857
Kingston City Council	CLAYTON SOUTH	FRASER RD	Current landfill. Requires ongoing management.	0090006001
Kingston City Council	MENTONE	17 BALCOMBE RD	Former petroleum storage site. Requires assessment and/or clean up.	0090006641
Knox City Council	Wantirna	750A Boronia RD	Illegal dumping. Requires assessment and/or clean up.	0090000181
Knox City Council	WANTIRNA SOUTH	CATHIES LANE CATHIES LANE	Former Landfill. Requires ongoing management.	0090000475
Knox City Council	WANTIRNA SOUTH	CATHIES LANE CATHIES LANE	Former Landfill. Requires ongoing management.	0090003738
Latrobe City Council	TRARALGON SOUTH	Loy Yang B3/4 Bartons Lane	Ash pond with a Groundwater Attenuation Zone. Requires ongoing management.	0090002894
Latrobe City Council	MORWELL	Lot RES1 PS449978 MARYVALE ROAD	Former Landfill. Requires ongoing management.	0090006257
Latrobe City Council	Hernes Oak	SPI : 9L\PP3273 PFI : 52587509	Former Landfill. Requires ongoing management.	0090006616
Macedon Ranges Shire Council	BULLENGAROOK	Hobbs RD	Former Landfill. Requires ongoing management.	0090003582
Macedon Ranges Shire Council	LANCEFIELD	Baynton (Lot 16 LP208950) RD	Former Landfill. Requires ongoing management.	0090005294
Macedon Ranges Shire Council	ROMSEY	2 33 MAIN ST	Current Service Station. Requires assessment and/or clean up.	0090005361
Macedon Ranges Shire Council	WOODEND	130 High ST	Current Service Station. Requires ongoing management.	0090005669
Macedon Ranges Shire Council	KYNETON	Redesdale (Lot 24D\PP2979) RD	Former Landfill. Requires ongoing management.	0090006370
Manningham City Council	PARK ORCHARDS	20 STINTONS RD	Illegal dumping. Requires assessment and/or clean up.	0090005987
Manningham City Council	PARK ORCHARDS	20 STINTONS RD	Illegal dumping. Requires assessment and/or clean up.	0090005988
Manningham City Council	PARK ORCHARDS	20 STINTONS RD	Illegal dumping. Requires assessment and/or clean up.	0090005989
Mansfield Shire Council	MANSFIELD	Monkey Gully RD	Former Landfill. Requires ongoing management.	0090005736
Maribyrnong City Council	YARRAVILLE	1 High ST	Former Industrial Site. Requires ongoing management.	0090000134
Maribyrnong City Council	BROOKLYN	550 GEELONG RD	Former Industrial Site. Requires assessment and/or clean up.	0090002056
Maribyrnong City Council	YARRAVILLE	221 Whitehall ST	Former Industrial Site. Requires ongoing management.	0090003331
Maribyrnong City Council	FOOTSCRAY	Farnsworth AV	Former Landfill. Requires ongoing management.	0090003484
Maribyrnong City Council	MAIDSTONE	9 WILLIAMSON RD	Former Industrial Site. Requires assessment and/or clean up.	0090003767
Maribyrnong City Council	MAIDSTONE	9 WILLIAMSON RD	Former Industrial Site. Requires assessment and/or clean up.	0090003768
Maribyrnong City Council	BROOKLYN	550 GEELONG RD	Illegal dumping. Requires assessment and/or clean up.	0090004455

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
Maribyrnong City Council	YARRAVILLE	325 WHITEHALL STREET	Former Industrial Site. Requires assessment and/or clean up.	0090004781
Maribyrnong City Council	TOTTENHAM	1 AMANDA RD	Current chemical storage facility. Requires assessment and/or clean up.	0090004939
Maribyrnong City Council	BRAYBROOK	30 SOUTH RD	Former Industrial Site. Requires assessment and/or clean up.	0090005436
Maribyrnong City Council	YARRAVILLE	2A FRANCIS ST	Former Industrial Site. Requires assessment and/or clean up.	0090006320
Maribyrnong City Council	WEST FOOTSCRAY	1 Graingers RD	Former chemical storage facility. Requires assessment and/or clean up.	0090006323
Maroondah City Council	RINGWOOD EAST	18 Mount Dandenong RD	Current Service Station. Requires assessment and/or clean up.	0090005725
Melbourne City Council	PORT MELBOURNE	2 WEST GATE FWY	Current Service Station. Requires assessment and/or clean up.	0090006663
Melton Shire Council	PLUMPTON	1 Holden RD	Solid inert waste has been dumped at the site. Requires assessment and/or clean up.	0090000159
Melton Shire Council	PLUMPTON	627 Plumpton RD	Solid inert waste has been dumped at the site. Requires assessment and/or clean up.	0090000300
Melton Shire Council	MELTON SOUTH	2 FERRIS RD	Former Landfill. Requires ongoing management.	0090003479
Melton Shire Council	MELTON SOUTH	2 FERRIS RD	Former Landfill. Requires ongoing management.	0090003480
Melton Shire Council	MELTON	Ferris RD	Former Landfill. Requires ongoing management.	0090003481
Melton Shire Council	PLUMPTON	627 PLUMPTON RD	Solid inert waste has been dumped at the site. Requires assessment and/or clean up.	0090003893
Melton Shire Council	PLUMPTON	627 PLUMPTON RD	Illegal dumping. Requires assessment and/or clean up.	0090004146
Melton Shire Council	MELTON SOUTH	2 FERRIS RD	Former Landfill. Requires ongoing management.	0090005053
Mildura Rural City Council	OUYEN	48 FARRELL ST	Former petroleum storage site. Requires assessment and/or clean up.	0090004611
Mildura Rural City Council	KOORLONG	Twentieth ST	Former Landfill. Requires ongoing management.	0090005267
Mildura Rural City Council	MILDURA	211 NINTH ST	Former petroleum storage site. Requires ongoing management.	0090005843
Mildura Rural City Council	MILDURA	220 TENTH ST	Former petroleum storage site. Requires assessment and/or clean up.	0090005846
Mildura Rural City Council	NICHOLS POINT	63 CURETON (Lot 3, LP218256) AV	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006181
Mildura Rural City Council	NICHOLS POINT	63 CURETON (Lot 3, LP218256) AV	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006182
Mitchell Shire Council	SEYMOUR	117 Wimble ST	Current Industrial Site. Requires assessment and/or clean up.	0090001737
Mitchell Shire Council	BROADFORD	High ST	Former Landfill. Requires ongoing management.	0090003542
Mitchell Shire Council	SEYMOUR	Lot 1\TP41415 HUME AND HOVELL ROAD	Former Landfill. Requires ongoing management.	0090006118
Moira Shire Council	YARRAWONGA	81 Channel RD	Former Landfill. Requires ongoing management.	0090003539
Moira Shire Council	YARRAWONGA	81 Channel RD	Former Landfill. Requires assessment and/or clean up.	0090003543
Moira Shire Council	YARRAWONGA	81 Channel RD	Former Landfill. Requires ongoing management.	0090003544
Moira Shire Council	NUMURKAH	Parish Of Katunga C/a 14 Sect D Naring Rd	Former Landfill. Requires ongoing management.	0090003545
Moira Shire Council	MUCKATAH	Lot 2\LP216470 Benalla-Tocumwal Rd	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006424
Moira Shire Council	MUCKATAH	Lot 2\LP90239 Benalla-Tocumwal Road	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006425
Moira Shire Council	MUCKATAH	Lot 2\LP216470 Benalla-Tocumwal Rd	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006578
Moira Shire Council	MUCKATAH	Lot 2\LP90239 Benalla-Tocumwal Road	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006579
Monash City Council	GLEN WAVERLEY	310 SPRINGVALE RD	Current Industrial Site. Requires ongoing management.	0090006390
Moonee Valley City Council	ASCOT VALE	556 MT ALEXANDER RD	Current Service Station. Requires assessment and/or clean up.	0090004429

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
Moonee Valley City Council	MOONEE PONDS	783 Mt Alexander RD	Current Service Station. Requires ongoing management.	0090006758
Moorabool Shire Council	MADDINGLEY	Side Of Kerrs RD	Former Landfill. Requires ongoing management.	0090003631
Moorabool Shire Council	FISKVILLE	Geelong-Ballan RD	Current Industrial Site. Requires assessment and/or clean up.	0090004570
Moorabool Shire Council	FISKVILLE	Geelong-Ballan RD	Current Industrial Site. Requires assessment and/or clean up.	0090004571
Moreland City Council	Brunswick	225 and 227-231 Barkly Street	Former Industrial Site. Requires ongoing management.	0090004362
Moreland City Council	BRUNSWICK	225 and 227-231 Barkly Street	Former Industrial Site. Requires ongoing management.	0090004520
Moreland City Council	PASCOE VALE	512 PASCOE VALE RD	Current Service Station. Requires assessment and/or clean up.	0090006686
Mornington Peninsula Shire Council	SOMERVILLE	182 Eramosa RD	Illegal dumping. Requires assessment and/or clean up.	0090000097
Mornington Peninsula Shire Council	MOUNT ELIZA	250 Moorooduc HWY	Former Landfill. Requires ongoing management.	0090000477
Mornington Peninsula Shire Council	RYE	2233 POINT NEPEAN RD	Current Service Station. Requires ongoing management.	0090000658
Mornington Peninsula Shire Council	RED HILL	87 Arthurs Seat RD	Current Service Station. Requires assessment and/or clean up.	0090002114
Mornington Peninsula Shire Council	ROSEBUD WEST	119 Truemans RD	Former Landfill. Requires ongoing management.	0090003616
Mornington Peninsula Shire Council	CRIB POINT	2 Lens ST	Former Landfill. Requires ongoing management.	0090003619
Mornington Peninsula Shire Council	MOUNT ELIZA	250 Moorooduc HWY	Former Landfill. Requires ongoing management.	0090003744
Mornington Peninsula Shire Council	CRIB POINT	The Esplanade	Former Industrial Site. Requires ongoing management.	0090006084
Mornington Peninsula Shire Council	HASTINGS	33 CEMETERY RD	Accidental spill/leak (non-industrial site). Requires assessment and/or clean up.	0090006763
Mount Alexander Shire Council	Castlemaine	74 Tomkies Road Lane	Contaminated soil is retained and managed onsite. Requires ongoing management.	0090004156
Moyne Shire Council	PORT FAIRY	Badhams LANE	Former Landfill. Requires ongoing management.	0090003625
Moyne Shire Council	ALLANSFORD	5331 Great Ocean RD	Current Industrial Site. Requires ongoing management.	0090004322
Nillumbik Shire Council	PANTON HILL	165 MOTSCHALL RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090002083
Nillumbik Shire Council	KANGAROO GROUND	105 GRAHAM RD	Former Landfill. Requires ongoing management.	0090003505
Nillumbik Shire Council	YARRAMBAT	290 Yan Yean RD	Former Landfill. Requires ongoing management.	0090006073
Nillumbik Shire Council	ELTHAM	197 Sherbourne RD	Former Industrial Site. Requires assessment and/or clean up.	0090006551
Northern Grampians Shire Council	STAWELL	25 Horsham RD	Former Industrial Site. Requires assessment and/or clean up.	0090005537
Northern Grampians Shire Council	Stawell	Crown Allotment 136K Parish of Illawarra	Industrial waste has been dumped at the site. Requires ongoing management.	0090006260
Northern Grampians Shire Council	Stawell	Crown Allotment 136K Parish of Illawarra	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006261
Northern Grampians Shire Council	Stawell	TSF2 ,CA1 Sec5,CA4 Sec5, CA5 Sec5 CA6 Sec5, CA18V Sec2, CA18W Sec2,	Current Industrial Site. Requires assessment and/or clean up.	0090006460
Northern Grampians Shire Council	Stawell	TSF2 ,CA1 Sec5,CA4 Sec5, CA5 Sec5 CA6 Sec5, CA18V Sec2, CA18W Sec2,	Current Industrial Site. Requires assessment and/or clean up.	0090006461
Port Phillip City Council	ELWOOD	54A MARINE PDE	Current Service Station. Requires ongoing management.	0090005724
Port Phillip City Council	PORT MELBOURNE	337 WILLIAMSTOWN RD	Former Service Station. Requires assessment and/or clean up.	0090006428
Southern Grampians Shire Council	PENSHURST	5188 PENSHURST-WARRNAMBOOL RD	Illegal dumping. Requires assessment and/or clean up.	0090005839
Southern Grampians Shire Council	PENSHURST	14 PENSHURST-DUNKELD RD	Current Industrial Site. Requires assessment and/or clean up.	0090006268

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
South Gippsland Shire Council	FOSTER	4090 SOUTH GIPPSLAND HWY	Former Landfill. Requires ongoing management.	0090003533
South Gippsland Shire Council	FOSTER	4090 SOUTH GIPPSLAND HWY	Former Landfill. Requires ongoing management.	0090003747
South Gippsland Shire Council	FOSTER	4090 SOUTH GIPPSLAND HWY	Former Landfill. Requires ongoing management.	0090006658
Stonnington City Council	PRAHRAN	549 HIGH ST	Current Service Station. Requires ongoing management.	0090006245
Surf Coast Shire Council	ANGLESEA	POWER STATION CAMP RD	Former Industrial Site. Requires assessment and/or clean up.	0090006380
Surf Coast Shire Council	WINCHELSEA	3610 PRINCES HWY	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006702
Swan Hill Rural City Council	Swan Hill	3 Hastings Street	Current petroleum storage site. Requires assessment and/or clean up.	0090003573
Swan Hill Rural City Council	PENTAL ISLAND	LOT 4\PS537291, 1411 PENTAL ISLAND ROAD	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	0090006076
Swan Hill Rural City Council	LAKE POWELL	LOT 1 TP898018, 3 BELSAR RD	Illegal dumping. Requires assessment and/or clean up.	0090006699
Swan Hill Rural City Council	LAKE POWELL	LOT 1 TP898018, 3 BELSAR RD	Illegal dumping. Requires assessment and/or clean up.	0090006721
Towong Shire Council	BETHANGA	4 MARTIN ST	Former Landfill. Requires ongoing management.	0090003554
Wangaratta Rural City Council	WANGARATTA SOUTH	99 SHANLEY ST	Current Industrial Site. Requires assessment and/or clean up.	0090006346
Wangaratta Rural City Council	WANGARATTA	Allot. 5 Sec. 42C Township of Wangaratta	Industrial waste has been dumped at the site. Requires ongoing management.	0090006800
Warrnambool City Council	WARRNAMBOOL	Braithwaite ST	Former Landfill. Requires ongoing management.	0090003637
Wellington Shire Council	TRARALGON	Loy Yang Switchyard Bartons LANE	Ash pond with a Groundwater Attenuation Zone. Requires ongoing management.	0090002893
Wellington Shire Council	YARRAM	Off Yarram-Traralgon RD	Former Landfill. Requires ongoing management.	0090003055
Wellington Shire Council	LONGFORD	746 LONGFORD-LOCH SPORT RD	Former Landfill. Requires ongoing management.	0090003791
Wellington Shire Council	LONGFORD	746 LONGFORD-LOCH SPORT RD	Former Landfill. Requires ongoing management.	0090003792
Wellington Shire Council	WEST SALE	Cnr Princes Highway and Sale-Cowarr Road	Current Industrial Site. Requires assessment and/or clean up.	0090006357
Whitehorse City Council	BOX HILL	14 Federation ST	Former Landfill. Requires ongoing management.	0090003499
Whittlesea City Council	THOMASTOWN	342 Settlement RD	Former Service Station. Requires assessment and/or clean up.	0090001959
Whittlesea City Council	EPPING	500 Cooper ST	Former Landfill. Requires ongoing management.	0090003490
Whittlesea City Council	EPPING	490 COOPER ST	Former Landfill. Requires ongoing management.	0090003502
Whittlesea City Council	THOMASTOWN	240 HIGH ST	Former Service Station. Requires assessment and/or clean up.	0090004077
Whittlesea City Council	THOMASTOWN	342 Settlement RD	Former petroleum storage site. Requires assessment and/or clean up.	0090006752
Wodonga Rural City Council	WODONGA	3437 Beechworth-Wodonga RD	Former Landfill. Requires ongoing management.	0090003548
Wyndham City Council	LAVERTON NORTH	41 LEAKES RD	Former Industrial Site. Requires ongoing management.	0090003389
Wyndham City Council	LITTLE RIVER	490 EDGARS RD	Illegal dumping. Requires assessment and/or clean up.	0090004276
Wyndham City Council	LAVERTON NORTH	103 Pipe RD	Current Industrial Site. Requires assessment and/or clean up.	0090004912
Wyndham City Council	LAVERTON NORTH	41 LEAKES RD	Former Industrial Site. Requires ongoing management.	0090006212
Yarra City Council	RICHMOND	3-21a Kent St 1/4-14/4 Little Buckingham St	Former Industrial Site. Requires ongoing management.	0090001920
Yarra City Council	FITZROY NORTH	433 SMITH ST	Former Industrial Site. Requires ongoing management.	0090004363
Yarra Ranges Shire Council	COLDSTREAM	Ingram RD	Former Landfill. Requires ongoing management.	0090003838

PRIORITY SITES REGISTER

Information as at 31 May 2016

Municipality	Suburb	Address	Issue	Notice Number
Yarra Ranges Shire Council	COLDSTREAM	Ingram RD	Former Landfill. Requires ongoing management.	0090003839
Yarra Ranges Shire Council	HEALESVILLE	Mt Riddel RD	Former Landfill. Requires ongoing management.	0090003840
Yarra Ranges Shire Council	HEALESVILLE	Mt Riddel RD	Former Landfill. Requires ongoing management.	0090003841
Yarra Ranges Shire Council	KILSYTH	2 76 Fussell RD	Former Industrial Site. Requires assessment and/or clean up.	0090006104
Yarra Ranges Shire Council	KILSYTH	2 76 Fussell RD	Former Industrial Site. Requires assessment and/or clean up.	0090006105
Yarra Ranges Shire Council	KILSYTH	2 76 Fussell RD	Former Industrial Site. Requires assessment and/or clean up.	0090006106
Yarra Ranges Shire Council	KILSYTH	2 76 Fussell RD	Former Industrial Site. Requires assessment and/or clean up.	0090006107
Yarra Ranges Shire Council	HEALESVILLE	265 MAROONDAH HWY	Former Industrial Site. Requires assessment and/or clean up.	0090006510



LEGEND

Current Study Precinct

Employment

Previous Study Precincts

Wirraway

Sandridge

Montague

Lorimer

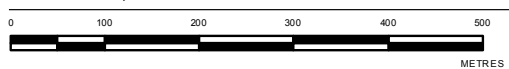
NOTES

1. Aerial Photographs sourced from DELWP.
2. Employment and Previous Study Precincts sourced from DELWP, 2016.
3. Image georeferencing may cause slight Precinct offset. The information provided is to be used as a guide only.

CLIENT
DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING (DELWP)

PROJECT
PRELIMINARY LAND CONTAMINATION STUDY - EMPLOYMENT PRECINCT, FISHERMANS BEND DISTRICT

TITLE		CONSULTANT	
HISTORICAL AERIAL PHOTOGRAPH - 1931		YYYY-MM-DD	2016-09-05
PREPARED	AFE	DESIGN	-
REVIEW	PDB	APPROVED	CJW



REFERENCE SCALE: 1:8,000 (at A3)
PROJECTION: GDA 1994 MGA Zone 55



PROJECT No. 1654703 CONTROL 001-R Rev. 0 FIGURE D3-1

Path: J:\Env\2016\1654703_DELWP_P8\Fishermans Bend\Technical Docs\GIS\Project\1654703_001_R_D3-1_Rev0.mxd

© THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN. THE BUBBLE SIZE HAS BEEN MODIFIED FROM A 3 25mm



LEGEND

Current Study Precinct

Employment

Previous Study Precincts

Wirraway

Sandridge

Montague

Lorimer

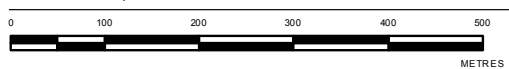
NOTES

1. Aerial Photographs sourced from the University of Melbourne.
2. Employment and Previous Study Precincts sourced from DELWP, 2016.
3. Image georeferencing may cause slight Precinct offset. The information provided is to be used as a guide only.

CLIENT
DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING (DELWP)

PROJECT
PRELIMINARY LAND CONTAMINATION STUDY - EMPLOYMENT PRECINCT, FISHERMANS BEND DISTRICT

TITLE
HISTORICAL AERIAL PHOTOGRAPH - 1945



REFERENCE SCALE: 1:8,000 (at A3)
PROJECTION: GDA 1994 MGA Zone 55



CONSULTANT	YYYY-MM-DD	2016-09-05
	PREPARED	AFE
	DESIGN	-
	REVIEW	PDB
	APPROVED	CJW
PROJECT No.	CONTROL	Rev.
1654703	001-R	0

FIGURE D3-2

Path: J:\Env\2016\1654703_DEWP\PS\Fishermans Bend\Technical Docs\GIS\Project\1654703_001_R_D3-2_rev0.mxd

© THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN. THE BRIDGE IS NOT SHOWN IN THIS PHOTOGRAPH.



LEGEND
Current Study Precinct
 Employment

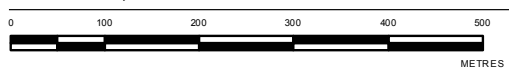
Previous Study Precincts
 Wirraway
 Sandridge
 Montague
 Lorimer

NOTES
 1. Aerial Photographs sourced from DELWP.
 2. Employment and Previous Study Precincts sourced from DELWP, 2016.
 3. Image georeferencing may cause slight Precinct offset. The information provided is to be used as a guide only.

CLIENT
 DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING (DELWP)
 PROJECT
 PRELIMINARY LAND CONTAMINATION STUDY - EMPLOYMENT PRECINCT, FISHERMANS BEND DISTRICT

TITLE
 HISTORICAL AERIAL PHOTOGRAPH - 1951

CONSULTANT	
YYYY-MM-DD	2016-09-05
PREPARED	AFE
DESIGN	-
REVIEW	PDB
APPROVED	CJW



REFERENCE SCALE: 1:8,000 (at A3)
 PROJECTION: GDA 1994 MGA Zone 55



PROJECT No. 1654703
 CONTROL 001-R
 Rev. 0

FIGURE D3-3

Path: J:\Env\2016\1654703_DELWP_P8\Fishermans Bend\Technical Docs\GIS\Project\1654703_001_R_03_3_rev0.mxd

© THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN IN THE SOURCE DATA HAS BEEN MODIFIED PRODUCTS 25mm

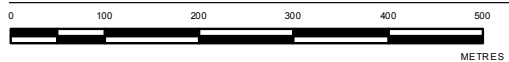


LEGEND
Current Study Precinct
 Employment

Previous Study Precincts
 Wirraway
 Sandridge
 Montague
 Lorimer

NOTES
 1. Aerial Photographs sourced from DELWP.
 2. Employment and Previous Study Precincts sourced from DELWP, 2016.
 3. Image georeferencing may cause slight Precinct offset. The information provided is to be used as a guide only.

CLIENT
 DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING (DELWP)
 PROJECT
 PRELIMINARY LAND CONTAMINATION STUDY - EMPLOYMENT PRECINCT, FISHERMANS BEND DISTRICT



REFERENCE SCALE: 1:8,000 (at A3)
 PROJECTION: GDA 1994 MGA Zone 55

TITLE
 HISTORICAL AERIAL PHOTOGRAPH - 1966

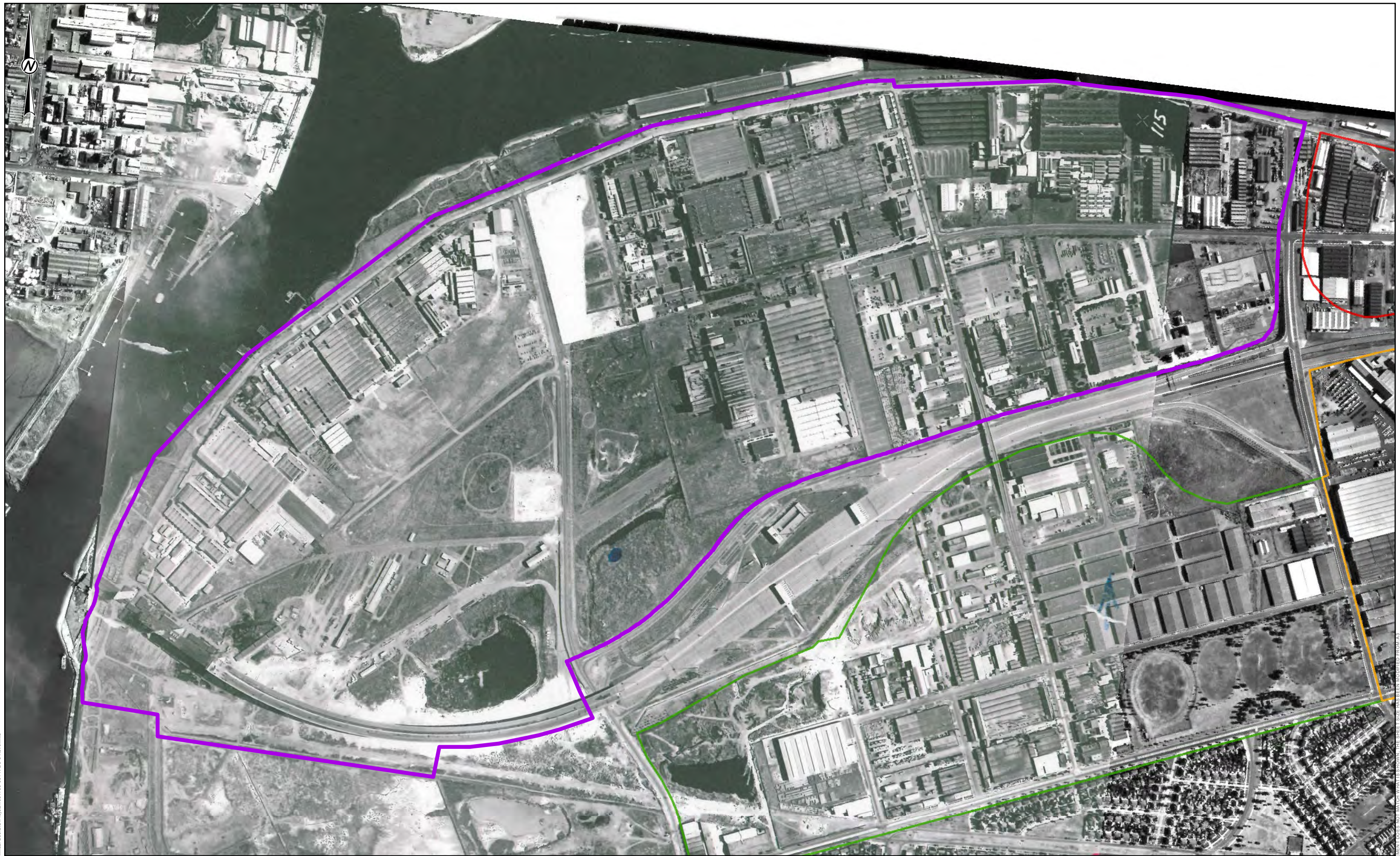


CONSULTANT	YYYY-MM-DD	2016-09-05
PREPARED	AFE	
DESIGN	-	
REVIEW	PDB	
APPROVED	CJW	

PROJECT No. 1654703 CONTROL 001-R Rev. 0 FIGURE D3-4

Path: J:\Env\2016\1654703_DELWP_P8\Fishermans Bend\Technical Docs\GIS Project\1654703_001_R_D3-4_Rev0.mxd

THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN IN THE BRUSH POLYMER MODIFIED PRODUCTS 25mm



LEGEND
Current Study Precinct
 Employment

Previous Study Precincts
 Wirraway
 Sandridge
 Montague
 Lorimer

NOTES

1. Aerial Photographs sourced from DELWP.
2. Employment and Previous Study Precincts sourced from DELWP, 2016.
3. Image georeferencing may cause slight Precinct offset. The information provided is to be used as a guide only.

CLIENT
 DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING (DELWP)

PROJECT
 PRELIMINARY LAND CONTAMINATION STUDY - EMPLOYMENT PRECINCT, FISHERMANS BEND DISTRICT

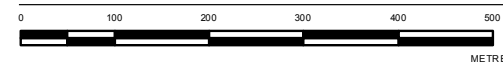
TITLE

HISTORICAL AERIAL PHOTOGRAPH - 1972

CONSULTANT



YYYY-MM-DD	2016-09-05
PREPARED	AFE
DESIGN	-
REVIEW	PDB
APPROVED	CJW



REFERENCE SCALE: 1:8,000 (at A3)
 PROJECTION: GDA 1994 MGA Zone 55

PROJECT No. 1654703
 CONTROL 001-R

Rev. 0

FIGURE D3-5



LEGEND
Current Study Precinct
 Employment

Previous Study Precincts
 Wirraway
 Sandridge
 Montague
 Lorimer

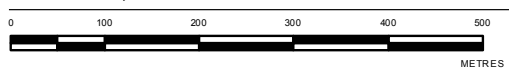
NOTES
 1. Aerial Photographs sourced from DELWP.
 2. Employment and Previous Study Precincts sourced from DELWP, 2016.
 3. Image georeferencing may cause slight Precinct offset. The information provided is to be used as a guide only.

CLIENT
 DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING (DELWP)

PROJECT
 PRELIMINARY LAND CONTAMINATION STUDY - EMPLOYMENT PRECINCT, FISHERMANS BEND DISTRICT

TITLE
 HISTORICAL AERIAL PHOTOGRAPH - 1982

CONSULTANT	
YYYY-MM-DD	2016-09-05
PREPARED	AFE
DESIGN	-
REVIEW	PDB
APPROVED	CJW



REFERENCE SCALE: 1:8,000 (at A3)
 PROJECTION: GDA 1994 MGA Zone 55



PROJECT No. 1654703 CONTROL 001-R Rev. 0

FIGURE **D3-6**

Path: J:\Env\2016\1654703 - DELWP FIS (Fishermans Bend) Technical Docs\GIS Project\1654703-001-R-D3-6-Rev0.mxd

© FISHERMANS BEND DISTRICT COUNCIL. THIS DOCUMENT IS UNCLASSIFIED. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED.



LEGEND
Current Study Precinct
 Employment

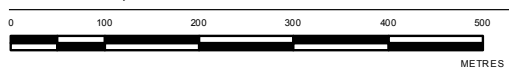
Previous Study Precincts
 Wirraway
 Sandridge
 Montague
 Lorimer

NOTES
 1. Aerial Photographs sourced from DELWP.
 2. Employment and Previous Study Precincts sourced from DELWP, 2016.
 3. Image georeferencing may cause slight Precinct offset. The information provided is to be used as a guide only.

CLIENT
 DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING (DELWP)

PROJECT
 PRELIMINARY LAND CONTAMINATION STUDY - EMPLOYMENT PRECINCT, FISHERMANS BEND DISTRICT

TITLE		CONSULTANT	
HISTORICAL AERIAL PHOTOGRAPH - 1990		YYYY-MM-DD	2016-09-05
PREPARED	AFE	DESIGN	-
REVIEW	PDB	APPROVED	CJW



REFERENCE SCALE: 1:8,000 (at A3)
 PROJECTION: GDA 1994 MGA Zone 55

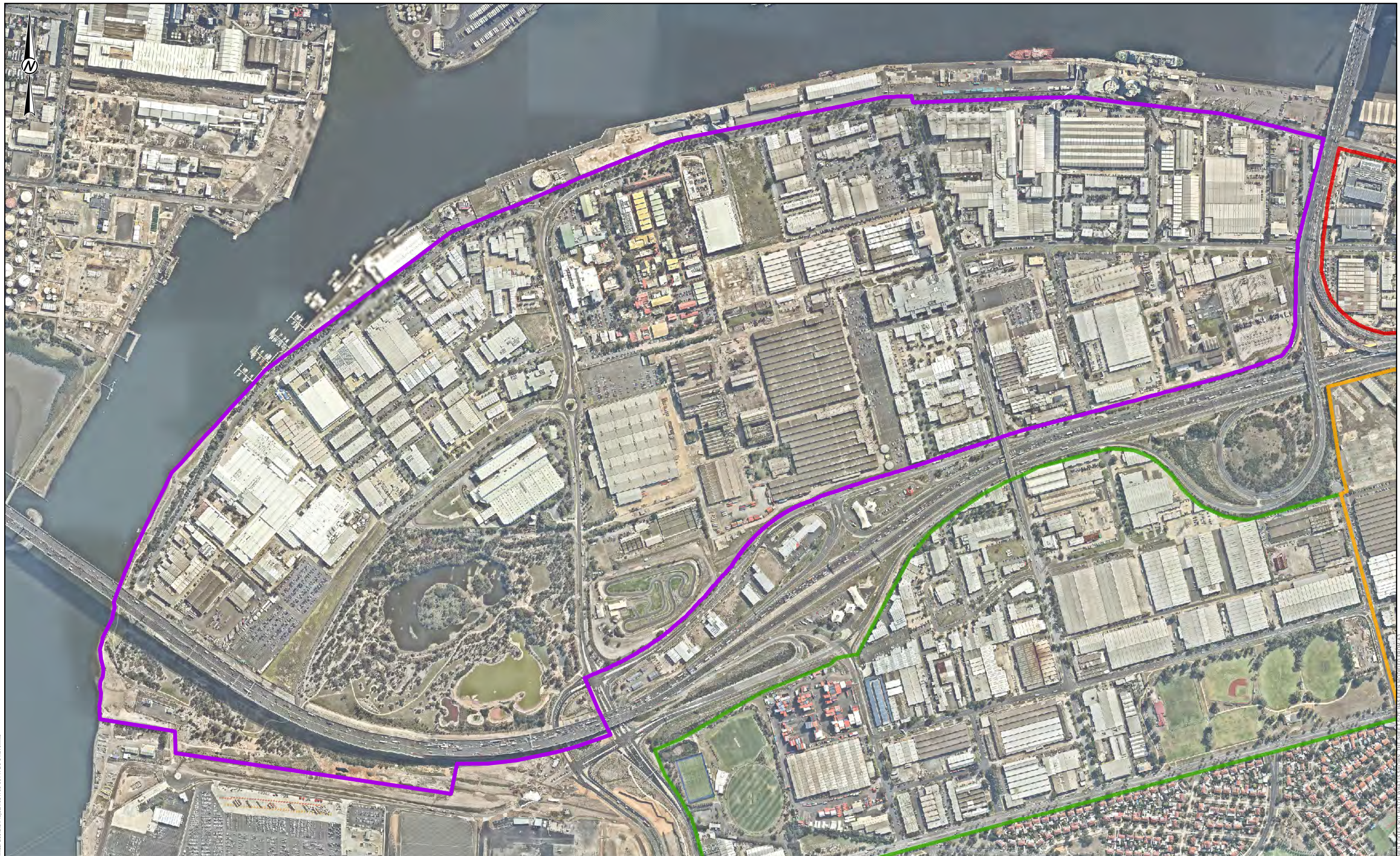


PROJECT No. 1654703 CONTROL 001-R Rev. 0

FIGURE D3-7

Path: J:\Env\2016\1654703_DELWP_PSI\Fishermans Bend\Technical Docs\GIS\Project\1654703_001_R_03_7_Rev0.mxd

THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN. THE WHITE LINE HAS BEEN HOODDED PRODUCA 25m



LEGEND

Current Study Precinct

Employment

Previous Study Precincts

Wirraway

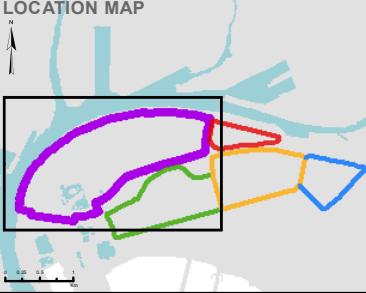
Sandridge

Montague

Lorimer

NOTES

1. Imagery sourced from nearmap, dated 20/03/2016.
2. Employment and Previous Study Precincts sourced from DELWP, 2016.



CLIENT
DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING (DELWP)

PROJECT
PRELIMINARY LAND CONTAMINATION STUDY - EMPLOYMENT PRECINCT, FISHERMANS BEND DISTRICT

REFERENCE SCALE: 1:8,000 (at A3)
PROJECTION: GDA 1994 MGA Zone 55

TITLE
CURRENT AERIAL PHOTOGRAPH

CONSULTANT
 Golder Associates

YYYY-MM-DD	2016-09-05
PREPARED	AFE
DESIGN	-
REVIEW	PDB
APPROVED	CJW

PROJECT No. 1654703 CONTROL 001-R Rev. 0 **FIGURE D3-8**

Path: J:\Env\2016\1654703 - DELWP PS\Fishermans Bend\Technical Docs\GIS\Project\1654703_001_R_D3_8_Rev0.mxd

© THIS MAP/STRAIGHTENED IMAGES AND AERIAL PHOTOGRAPHS ARE NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN PERMISSION OF GOLDBERGER ASSOCIATES



APPENDIX D3 Summary of Aerial Photo Review

Photo Details		Observation Areas	Observation of Study Area
1931 Scale 1:181860, Height 11000ft, Film 60, Run 9, Photo 2831-2832	Study Area	Employment: East of Salmon Street	Area undeveloped. Salmon Street not constructed. Golf course runways visible (likely Sandridge Golf Course).
		Employment: Todd Rd to Salmon St	Area undeveloped. Possible removal of sand shown as white in the photograph in southern end. This contrasts with areas without sand removal which are darker.
		Employment: West of Todd Rd	Area undeveloped.
		Westgate Park	Area undeveloped.
	Surrounding Area	South Wharf (north of Lorimer Street)	Area largely undeveloped. Coal storage in eastern end of port. Possible wharf constructed in eastern end; western end undeveloped with the exception of timber jetties.
		General Area	Sand mining / scraping / extraction occurring to the south, as shown by white areas. Williamstown Road and some residential properties visible to the south of Williamstown Road. Quarantine station on north side of Coode Canal.
1945 Scale 1:6000, Height 10200, Film 180, Run 21, Photos 58552-58558 & 58560	Study Area	Employment: East of Salmon Street	Salmon Street constructed. Around half this area being used for likely salvage. Several buildings and factory space constructed at corner of Salmon Street and Lorimer Street. Substation at corner of Salmon St and Turner St visible. Building at the Kraft site visible. The eastern portion being used as an open storage yard.
		Employment: Todd Rd to Salmon St	The airfield has been constructed. The North-South runway is visible (which later becomes Todd Road). Runways have a dark surface, likely bitumen. Small areas of sand extraction have appeared toward Salmon Street. GM Holden factory constructed at corner of Salmon St and Lorimer St. DSTG research lab buildings visible at northern end of runway. The runways appear to have been raised above the surrounding landscape, with batters visible particularly on the eastern and southern sections.
		Employment: West of Todd Rd	GAF and CAC factories have been constructed along Lorimer St. The factories are connected to the runway via service roads at the rear of factories which also appear black, inferred bitumen.
		Westgate Park	Southern End of runway constructed. Sand mine excavated (current salt water lake at Westgate Park) appears as part of runway construction.
	Surrounding Area	South Wharf (north of Lorimer Street)	Goods sheds north of Salmon Street. Coal storage in eastern end of port. Remainder undeveloped with the exception of jetties.
		General Area	Large deep holes appear beside the southern end of the runway. Expansion of residential buildings south of Williamstown Road. Construction of Wool Sheds and smaller factory buildings north of Williamstown Road. Sand mining pit visible south of Kraft. Development of factories and tank farms on western bank of the Yarra River.
1951 Scale 1:12000, Height 12200ft,	Study Area	Employment: East of Salmon Street	Addition of several new building in northeast. Sand mine at corner of Turner and Douglas Street; appears to have been used to level the adjacent site. SE still being used as an open storage yard.
		Employment: Todd Rd to Salmon St	Expansion of DSTG site with addition of many smaller buildings. Addition of an additional factory building at GMH. New buildings constructed along west side of Salmon Street.
		Employment: West of	Similar to previous aerial.



APPENDIX D3

Summary of Aerial Photo Review

Photo Details		Observation Areas	Observation of Study Area
Film 1417, Run 17, Photos 101-103		Todd Rd	
		Westgate Park	Expansion of sand mining activities on eastern side of NS runway.
	Surrounding Area	South Wharf (north of Lorimer Street)	Similar to previous aerial.
		General Area	Expansion of sand mining operations SE of the runway; holes appear larger and broader. Sand mine south of Kraft larger, extending to the wool sheds. Additional buildings and expansion of factories along on western bank of Yarra.
1966 Scale 1:19200, Height 9800ft, Film 1933, Run 11A, Photos 118-120	Study Area	Employment: East of Salmon Street	Kraft has expanded. Construction of new buildings east of Douglas Street for SEC workshop. Terminal station under construction. Addition on smaller buildings in all properties to north of Turner Street. Substation expanded.
		Employment: Todd Rd to Salmon St	DSTG has slightly expanded with some new small buildings. Large new factory constructed by GMH with a new foundry along the western side.
		Employment: West of Todd Rd	Similar to previous aerial. CAC has a couple of smaller new buildings.
		Westgate Park	Landfilling activities on east side of NS runway extending up to the GMH boundary.
	Surrounding Area	South Wharf (north of Lorimer Street)	Addition of two new sheds to the west of existing sheds plus the outline of an additional shed. Dry good stockpile to north of Hall St. possible carpark opposite the CAC factory.
		General Area	Sand mines to the south being infilled (as part of Port Melbourne municipal tip). Some large holes remain. Sand mine south of Kraft has expanded. Additional buildings constructed along Salmon Street. Across Coode Canal, the development of tank farm to the NW and sheds to the N and NE.
1972 Scale 1:9600, Height 5700ft, Film 2622, Run 39, Photos 115, 117 & 119	Study Area	Employment: East of Salmon Street	Addition of several smaller buildings which have infilled previously open space. Terminal station expanded.
		Employment: Todd Rd to Salmon St	Addition of smaller buildings on western side of Salmon Street. NS runway being converted into Todd Road. Expansion of DSTG due to Todd Road realignment to the west.
		Employment: West of Todd Rd	Similar to previous aerial, with the exception partial removal of runway.
		Westgate Park	Construction of Westgate freeway through middle of area. Northern portion being used as engineering site for construction.
	Surrounding Area	South Wharf (north of Lorimer Street)	Construction of smaller building to north of DSTG.
		General Area	Construction of the Westgate Freeway, with roadway largely constructed. Former sand mine / landfill areas infilled for freeway construction. Expansion of factory area between freeway and Williamstown Road.
1982 Scale 1:10000,	Study Area	Employment: East of Salmon Street	Similar to previous aerial. Migrant hostel has fewer buildings.
		Employment: Todd Rd to Salmon St	Expansion of factory roofline for engine plant at GMH. Western side of DSTG yet to be developed apart



APPENDIX D3 Summary of Aerial Photo Review

Photo Details		Observation Areas	Observation of Study Area
Height 5400ft, Film 3620, Run 6, Photos 110, 111 & 113			from two buildings.
		Employment: West of Todd Rd	New factory under construction at rear of GAF site.
		Westgate Park	Construction of freshwater (northern pond). Westgate freeway (and bridge) completed. Engineering worksite removed and appears as being infilled and landscaped. East side of Todd road appears to be becoming raised.
	Surrounding Area	South Wharf (north of Lorimer Street)	Similar to previous aerial. Addition of small building north of Todd Road.
		General Area	Similar to previous aerial.
1990 Scale 1:25000, Height 12500ft, Film 4331, Run 2, Photo 147	Study Area	Employment: East of Salmon Street	Extension of Boral site. Replacement of migrant hostel with a series of small buildings.
		Employment: Todd Rd to Salmon St	Additional buildings at DSTG. Removal of original GMH buildings at the corner of Salmon St and Lorimer St. New buildings have been constructed; lot only partially developed. Gun club has appeared.
		Employment: West of Todd Rd	Additional factory building at rear of GAF. HWT under construction.
		Westgate Park	Landscaping of new freshwater hole completed and parkland appears completed.
	Surrounding Area	South Wharf (north of Lorimer Street)	Open storage yard north of Todd Road.
		General Area	Petrol station constructed on an island in the Westgate Freeway.
2016 30cm resolution, Imagery sourced from Nearmap, dated 20/03/2016	Study Area	Employment: East of Salmon Street	Two booms across Lorimer Street constructed for Boral and Independent Cement and Lime to access the port. Business parks constructed on the former migrant hostel and at the corner of Lorimer and Salmon Street. Several new lager warehouses and distribution centres constructed in east of Hall St and Douglas Street. Cement and plaster sites have expanded operational capacity.
		Employment: Todd Rd to Salmon St	GMH sites along Lorimer street have been redeveloped into business parks and a new data centre, while one block remains vacant. New GMH V6 plant constructed along Todd Road. Renovations at the DSTG site. Factories along Salmon Street have been converted in business parks and commercial space.
		Employment: West of Todd Rd	HWT factory constructed. With the exception of the Boeing Site (former GAF), all other factories and buildings have been replaced with business parks and modern buildings.
		Westgate Park	Vegetation parkland in parkland has grown with numerous trees visible. Karting track constructed.
	Surrounding Area	South Wharf (north of Lorimer Street)	Dry goods loading facilities all along the wharf, including several silos and an open yard north of Todd Road. Two large sheds have been removed and now used as open storage. A marina and recreational boating space has been constructed as Pier 35.
		General Area	An additional petrol station constructed on an island in the Westgate Freeway.



APPENDIX D4 HISTORICAL PLANNING SCHEMES



Figure D4-1: 1954 planning scheme. Study Area boundary shown in purple. See attached document for legend.

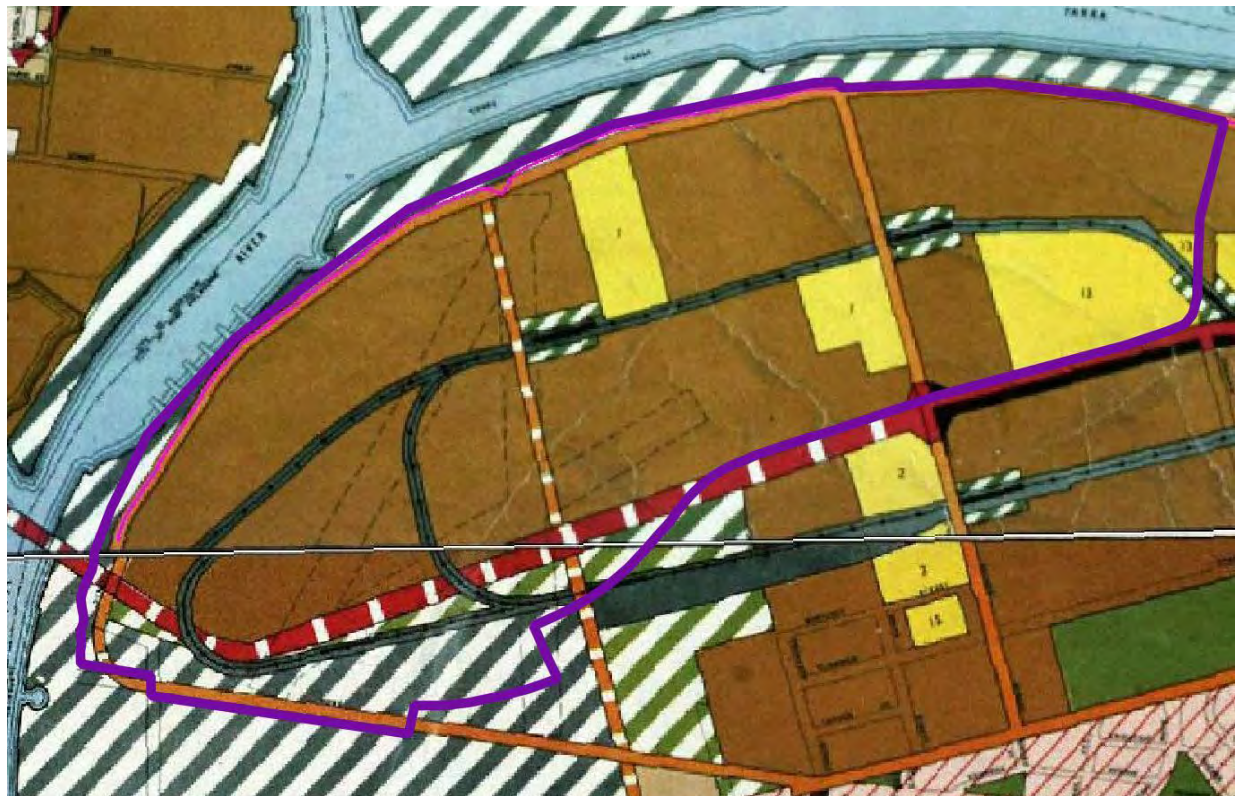


Figure D4-2: 1959 planning scheme. Study Area boundary shown in purple. See attached document for legend.



APPENDIX D4 HISTORICAL PLANNING SCHEMES

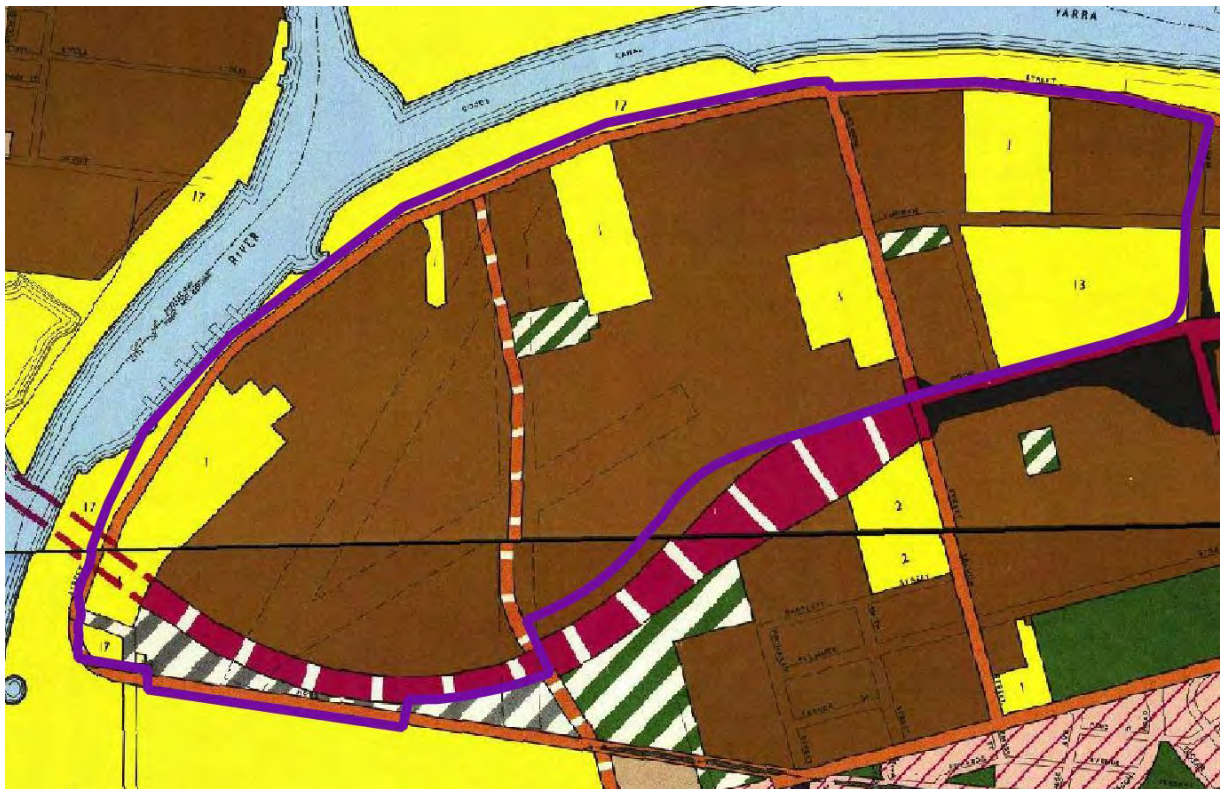


Figure D4-3: 1968 planning scheme. Study Area boundary shown in purple. See attached document for legend.

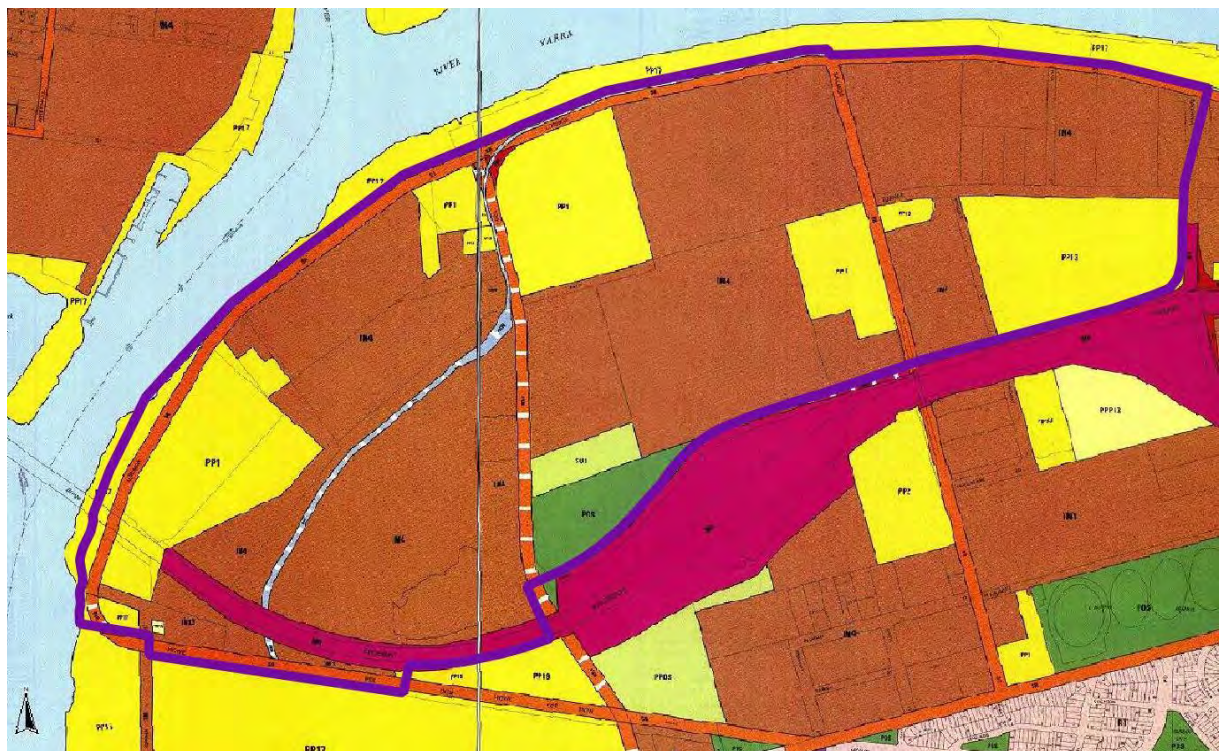


Figure D4-4: 1985 planning scheme. Study Area boundary shown in purple. See attached document for legend.

Data Source

DEWLP (2016), Planning Maps Online, Historical Planning Schemes, accessed 05 July 2016, <http://services.land.vic.gov.au/maps/pmo.jsp>, Victoria State Government

LEGEND - 1954

PLANNING BOUNDARY	
MUNICIPAL BOUNDARY	
ZONES	
RURAL	
VILLAGE	
RESIDENTIAL	A
	B
	C
	D
LIVING	
RESERVED LIVING	
CENTRAL BUSINESS	A
	B
	C
DISTRICT BUSINESS	
LOCAL BUSINESS	
RESTRICTED BUSINESS	
INDUSTRIAL	LIGHT A
	B
	GENERAL
	SPECIAL A
	B
	SERVICE
	WATERSIDE
	EXTRACTIVE
	OFFENSIVE
	DANGEROUS
	RESERVED
REDEVELOPMENT	
TRANSPORTATION	
EXPLOSIVE BUFFER	
SPECIAL USE	
RESERVATIONS	
OPEN SPACES	PUBLIC EXISTING
	PUBLIC PROPOSED
PUBLIC PURPOSES (SEE BELOW)	EXISTING
	PROPOSED
RAILWAYS	EXISTING
	PROPOSED
	PROPOSED UNDERGROUND
ROADS	EXISTING MAIN
	EXISTING SECONDARY
	PROPOSED MAIN
	PROPOSED SECONDARY
	WIDENING
	TO BE CLOSED
CEMETERIES & CREMATORIA	
CIVIL AIRFIELDS	
WATERWAYS	
<p>THE PURPOSES OF THE RESPECTIVE RESERVATIONS ARE DENOTED AS FOLLOWS</p> <ul style="list-style-type: none"> 1 HOSPITAL 2 PRIMARY SCHOOL 3 SECONDARY SCHOOL 4 TECHNICAL SCHOOL 5 COMMONWEALTH GOVERNMENT 6 PUBLIC WORKS DEPARTMENT 7 LANDS AND SURVEY DEPARTMENT 8 AGRICULTURE DEPARTMENT 9 CHILDRENS WELFARE DEPARTMENT 10 MINES DEPARTMENT 11 COMMONWEALTH EXPLOSIVES DEPARTMENT 12 MENTAL HYGIENE DEPARTMENT 13 PENAL DEPARTMENT 14 HEALTH DEPARTMENT 15 EDUCATION DEPT (OTHER THAN SCHOOLS) 16 STATE RIVERS & WATER SUPPLY COMMISSION 17 STATE ELECTRICITY COMMISSION 18 GAS & FUEL COMMISSION 19 COUNTRY ROADS BOARD 20 MELBOURNE AND METROPOLITAN TRAMWAYS BOARD 21 MELBOURNE HARBOUR TRUST 22 MELBOURNE AND METROPOLITAN BOARD OF WORKS 23 LOCAL GOVERNMENT 24 OTHER PUBLIC USES 	

LEGEND - 1959

PLANNING BOUNDARY	
MUNICIPAL BOUNDARY	
ZONES	
RURAL	A
	B
VILLAGE	V
RESIDENTIAL	A1
	A2
	B
	C
	D
RESERVED LIVING	
BUSINESS	CENTRAL
	DISTRICT
	RESTRICTED
	LOCAL
INDUSTRIAL	LIGHT
	SERVICE
	GENERAL
	SPECIAL
	RESERVED LIGHT
	RESERVED GENERAL
	COMMERCIAL & INDUSTRIAL
	EXTRACTIVE
	OFFENSIVE
	DANGEROUS
TRANSPORTATION	
EXPLOSIVE BUFFER	
SPECIAL USE	
RESERVATIONS	
PUBLIC OPEN SPACE	EXISTING
	PROPOSED
PUBLIC PURPOSES	EXISTING
	PROPOSED
RAILWAYS	EXISTING
	PROPOSED
ROADS	EXISTING MAIN
	EXISTING SECONDARY
	PROPOSED MAIN
	PROPOSED SECONDARY
	WIDENING
	TO BE CLOSED
CEMETERIES & CREMATORIA	
CIVIL AIRFIELDS	
WATERWAYS	
<p>THE PURPOSE OF THE RESPECTIVE RESERVATIONS ARE DENOTED AS FOLLOWS</p> <ul style="list-style-type: none"> 1 HOSPITAL 2 PRIMARY SCHOOL 3 SECONDARY SCHOOL 4 TECHNICAL SCHOOL 5 COMMONWEALTH GOVERNMENT 6 PUBLIC WORKS DEPARTMENT 7 LANDS AND SURVEY DEPARTMENT 8 AGRICULTURE DEPARTMENT 9 CHILDRENS WELFARE DEPARTMENT 10 MINES DEPARTMENT 11 COMMONWEALTH EXPLOSIVES DEPARTMENT 12 MENTAL HYGIENE DEPARTMENT 13 PENAL DEPARTMENT 14 HEALTH DEPARTMENT 15 EDUCATION DEPT (OTHER THAN SCHOOLS) 16 STATE RIVERS & WATER SUPPLY COMMISSION 17 STATE ELECTRICITY COMMISSION 18 GAS & FUEL COMMISSION 19 COUNTRY ROADS BOARD 20 MELBOURNE AND METROPOLITAN TRAMWAYS BOARD 21 MELBOURNE HARBOUR TRUST 22 MELBOURNE AND METROPOLITAN BOARD OF WORKS 23 LOCAL GOVERNMENT 24 OTHER PUBLIC USES 	

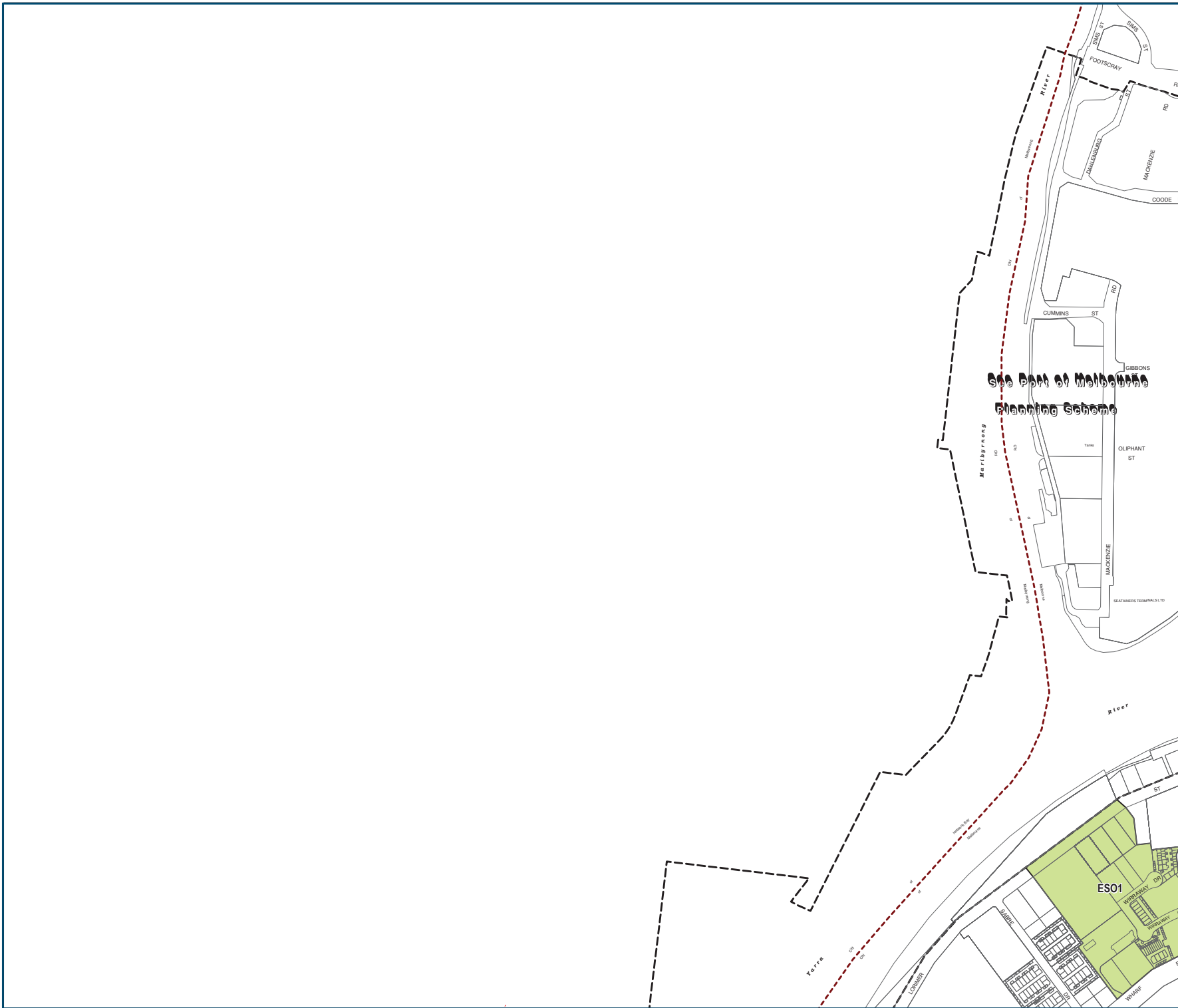
LEGEND - 1968

ZONES	
RURAL	
VILLAGE	V
RESIDENTIAL	A
	A1, A2
	B
	C
	D
RESERVED LIVING	
BUSINESS	CENTRAL
	DISTRICT
	RESTRICTED
BUSINESS	LOCAL
INDUSTRIAL	LIGHT
	GENERAL
	SPECIAL
	RESERVED LIGHT
	RESERVED GENERAL
	COMMERCIAL & INDUSTRIAL
	SERVICE
	EXTRACTIVE
	OFFENSIVE
	DANGEROUS
TRANSPORTATION	
SPECIAL USE (SERIALLY NUMBERED AS IN ORDINANCE)	
RESERVATIONS	
PUBLIC OPEN SPACE	EXISTING
	PROPOSED
PUBLIC PURPOSES (SEE PANEL AT EXTREME RIGHT)	EXISTING
	PROPOSED
CEMETERIES & CREMATORIA	
CIVIL AIRFIELDS	
ROADS	EXISTING MAIN
	PROPOSED MAIN
	EXISTING SECONDARY
	PROPOSED SECONDARY
	PROPOSED WIDENING
	TO BE CLOSED
RAILWAYS	EXISTING
	PROPOSED
WATERWAYS	
PLANNING BOUNDARY	
MUNICIPAL BOUNDARY	
<p>THE PURPOSE OF THE RESPECTIVE PUBLIC PURPOSE RESERVATIONS IS DENOTED AS FOLLOWS</p> <ul style="list-style-type: none"> 1 HOSPITAL 2 PRIMARY SCHOOL 3 SECONDARY SCHOOL 4 TECHNICAL SCHOOL 5 COMMONWEALTH GOVERNMENT 6 PUBLIC WORKS DEPARTMENT 7 LANDS AND SURVEY DEPARTMENT 8 AGRICULTURE DEPARTMENT 9 CHILDRENS WELFARE DEPARTMENT 10 MINES DEPARTMENT 11 COMMONWEALTH EXPLOSIVES DEPARTMENT 12 MENTAL HYGIENE DEPARTMENT 13 PENAL DEPARTMENT 14 HEALTH DEPARTMENT 15 EDUCATION DEPT (OTHER THAN SCHOOLS) 16 STATE RIVERS & WATER SUPPLY COMMISSION 17 STATE ELECTRICITY COMMISSION 18 GAS & FUEL COMMISSION 19 COUNTRY ROADS BOARD 20 MELBOURNE AND METROPOLITAN TRAMWAYS BOARD 21 MELBOURNE HARBOUR TRUST 22 MELBOURNE AND METROPOLITAN BOARD OF WORKS 23 LOCAL GOVERNMENT 24 OTHER PUBLIC USES 	

LEGEND - 1985

ZONES	
RESIDENTIAL	R1
RESERVED LIVING	R4
BUSINESS	B1
COMPREHENSIVE DEVELOPMENT No	D1
TRANSPORT CENTRE	T1
DISTRICT CENTRE	DC1
INDUSTRIAL	IN1
RURAL	RU1
GENERAL FARMING A	F1
INTENSIVE AGRICULTURE	A1
DEVELOPMENT AREA	DA1
SPECIAL EXTRACTIVE A	SE
CONSERVATION	CN1
LANDSCAPE INTEREST	L1
CORRIDOR A	C1
STREAM AND FLOODWAY	S1
SPECIAL USE No	SU1
<p>NOTE: A COMPREHENSIVE LEGEND LISTING ALL ZONES IS PRINTED BELOW AND SEPARATELY DESCRIBED IN THE ORDINANCE.</p>	
RESERVATIONS	
EXISTING PUBLIC OPEN SPACE	POS
PROPOSED PUBLIC OPEN SPACE	PPOS
EXISTING PUBLIC PURPOSES	PP1
PROPOSED PUBLIC PURPOSES	PPP1
EXISTING MAIN ROAD	MR
PROPOSED MAIN ROAD	PMR
EXISTING SECONDARY ROAD	SR
PROPOSED SECONDARY ROAD	PSR
PROPOSED ROAD WIDENING	PW
EXISTING RAILWAYS	RW
PROPOSED RAILWAYS	PRW
<p>NOTE: A COMPREHENSIVE LEGEND LISTING ALL RESERVATIONS IS SEPARATELY DESCRIBED IN THE ORDINANCE.</p>	
WATERWAYS	
PLANNING BOUNDARY	
MUNICIPAL BOUNDARY	
CODE	ZONE DESCRIPTION
R1	Residential C
R2	Residential D
R3	Township A
R4	Reserved Living
R5	Special Residential No 1
R6	Special Residential No 2
R7	Special Residential No 3
R8	Special Residential (Berwick) No 4
R9	Central Melbourne - Residential and Service
R10	Residential and Office
R11	Urban Conservation - Residential No 1
R12	Residential A
B1	District Business
B2	Restricted Business
B3	Local Business
B4	Service Business
B5	Commercial and Industrial
B6	Office
B7	Office Enterprise
B8	Special Peripheral Business
B9	Special Business (Berwick)
B10	Urban Conservation - Business No 1
B11	Neighbourhood Business
B12	Central Melbourne - Southbank
IN1	Light Industrial
IN2	Restricted Light Industrial
IN3	Reserved Light Industrial
IN4	General Industrial
IN5	Restricted General Industrial
IN6	Reserved General Industrial
IN7	Special Industrial
IN8	Reserved Special Industrial
IN9	Dangerous Industrial
IN10	Extractive Industrial
IN11	Offensive Industrial
IN12	Garden Industrial
IN13	Transportation
IN14	Industrial Estate
A1	Intensive Agriculture A
A2	Intensive Agriculture B
A3	Intensive Agriculture C
A4	Intensive Agriculture D
DA1	Development Area No 1 (Milleara)
DA2	Local Authority Development
DA3	Central Area Development
CN1	Conservation A
CN2	Special Conservation
L1	Landscape Interest A
L2	Landscape Interest B

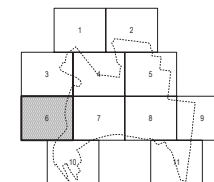
ENVIRONMENTAL SIGNIFICANCE OVERLAY



Overlays
 ESO1 Environmental Significance Overlay - Schedule 1



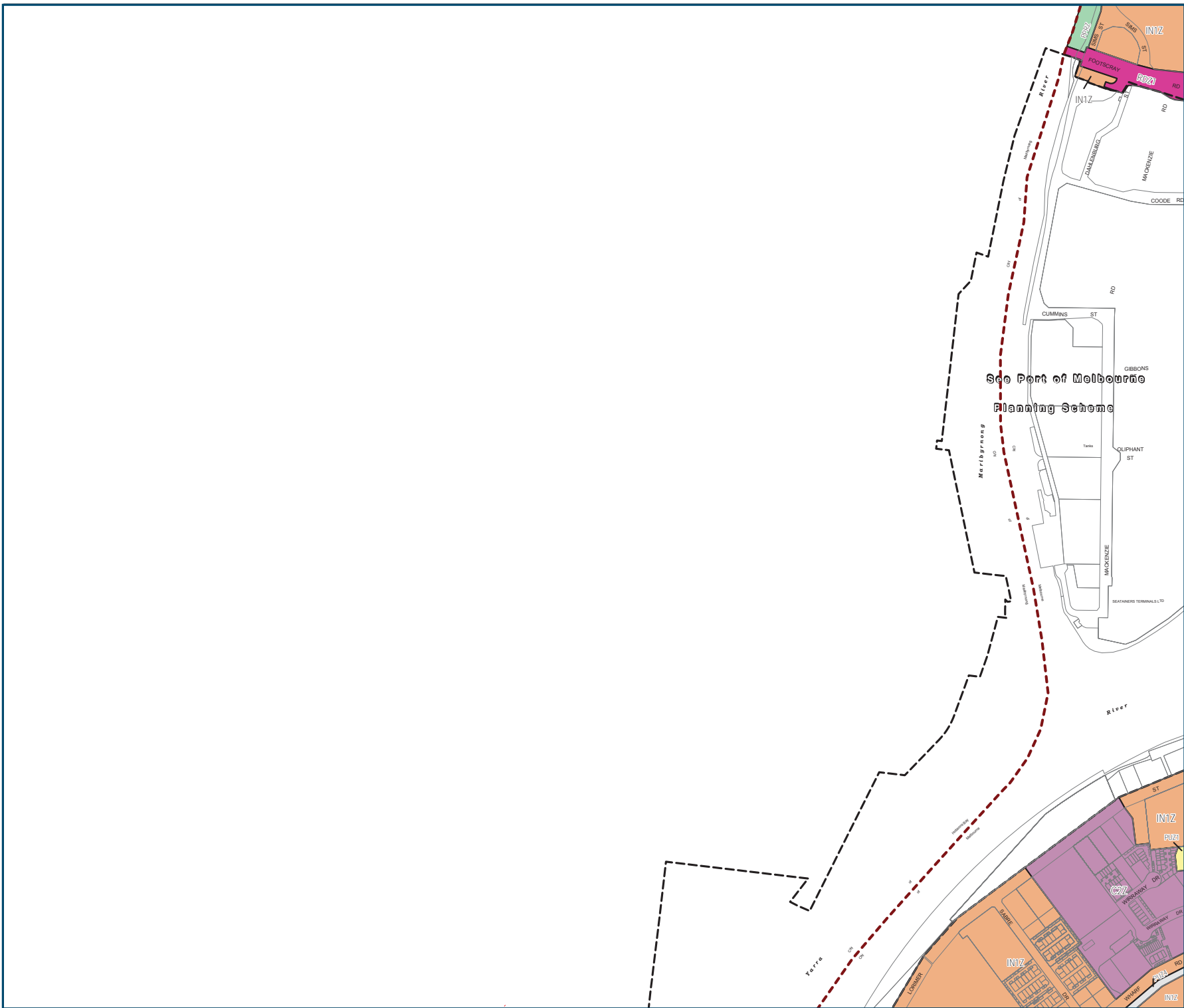
INDEX TO ADJOINING MAPS



Printed: 21/5/2012

AMENDMENT C185

MAP No 6ESO

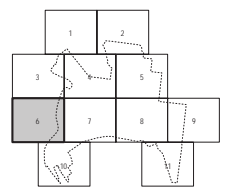


ZONES

- Commercial
 - Commercial 2 Zone
- Industrial
 - Industrial 1 Zone
- Public Land
 - Public Park And Recreation Zone
 - Public Use Zone - Service And Utility
 - Public Use Zone - Transport
 - Road Zone - Category 1



INDEX TO ADJOINING MAPS

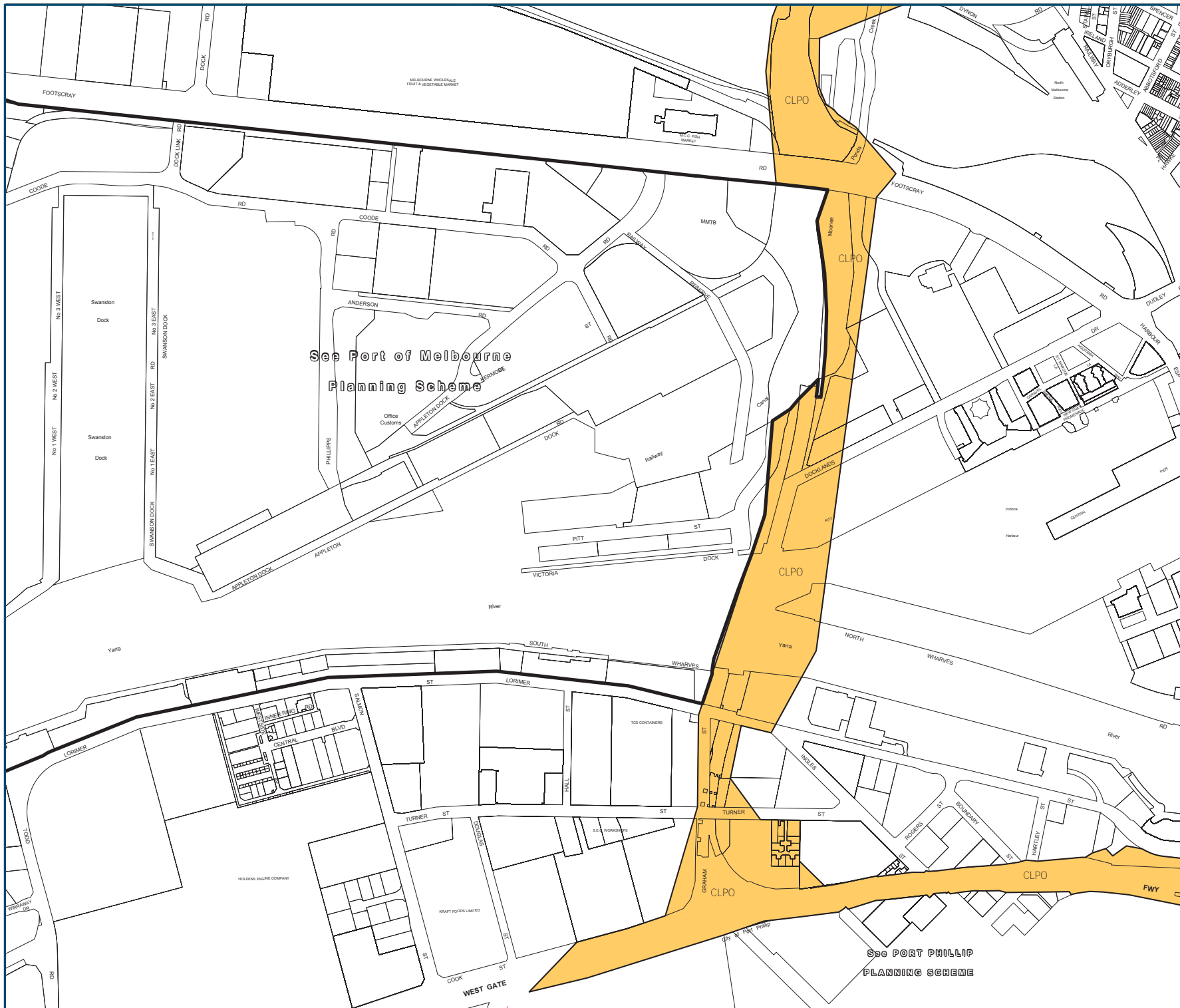


This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act.



* This map should be read in conjunction with additional Planning Overlay Maps (if applicable) as indicated on the INDEX TO MAPS.
 * A complete list of zones and other overlays is in the written part of this scheme.

CITY LINK PROJECT OVERLAY



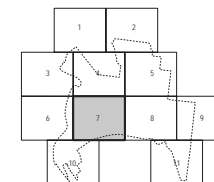
See Port of Melbourne Planning Scheme

See Port Phillip Planning Scheme

Overlays
 City Link Project Overlay



INDEX TO ADJOINING MAPS

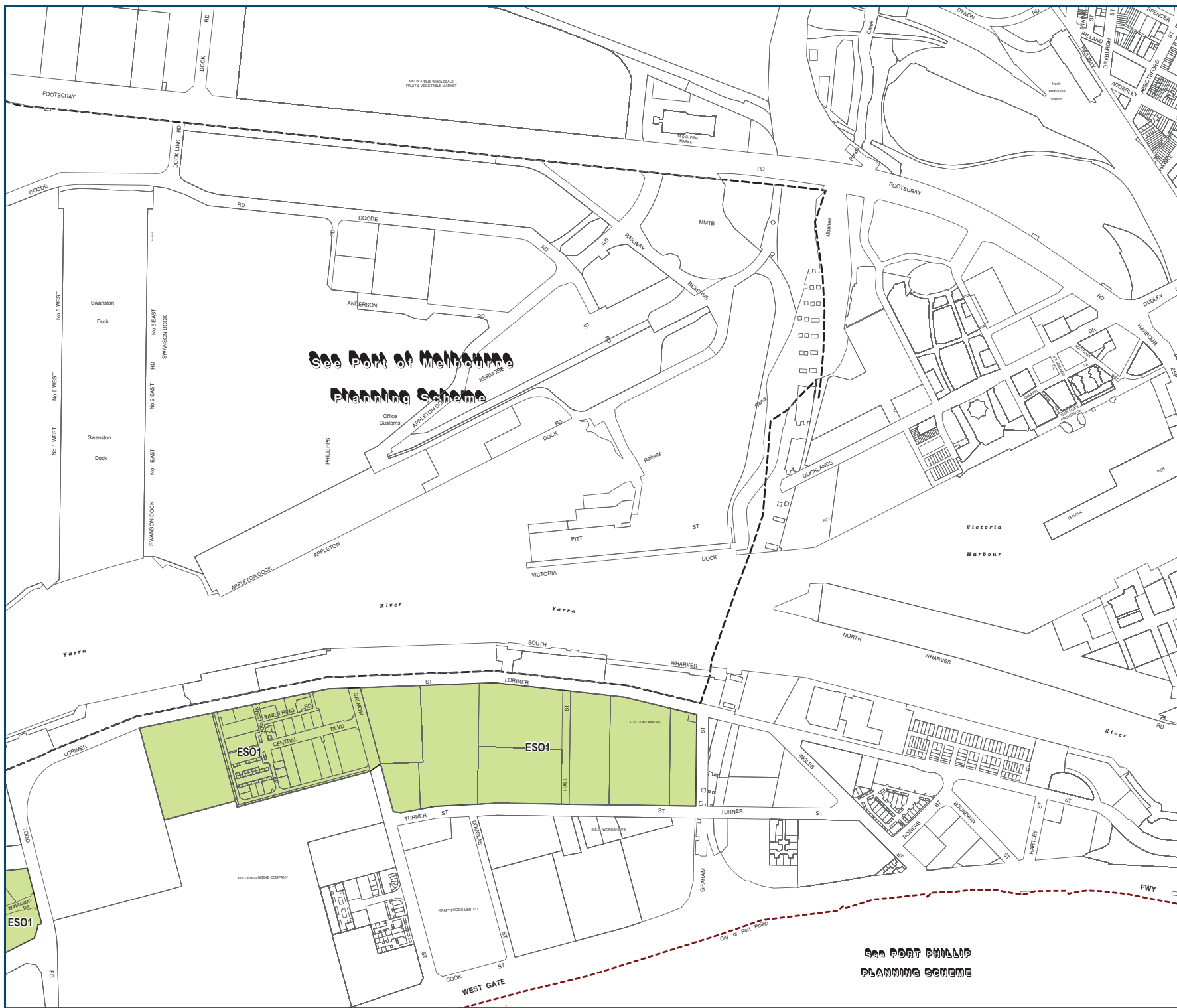


Printed: 8/1/2008

AMENDMENT C127

MAP No 7CLPO

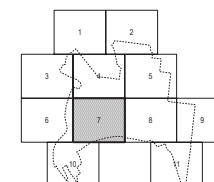
ENVIRONMENTAL SIGNIFICANCE OVERLAY



Overlays
 ES01 Environmental Significance Overlay - Schedule 1



INDEX TO ADJOINING MAPS

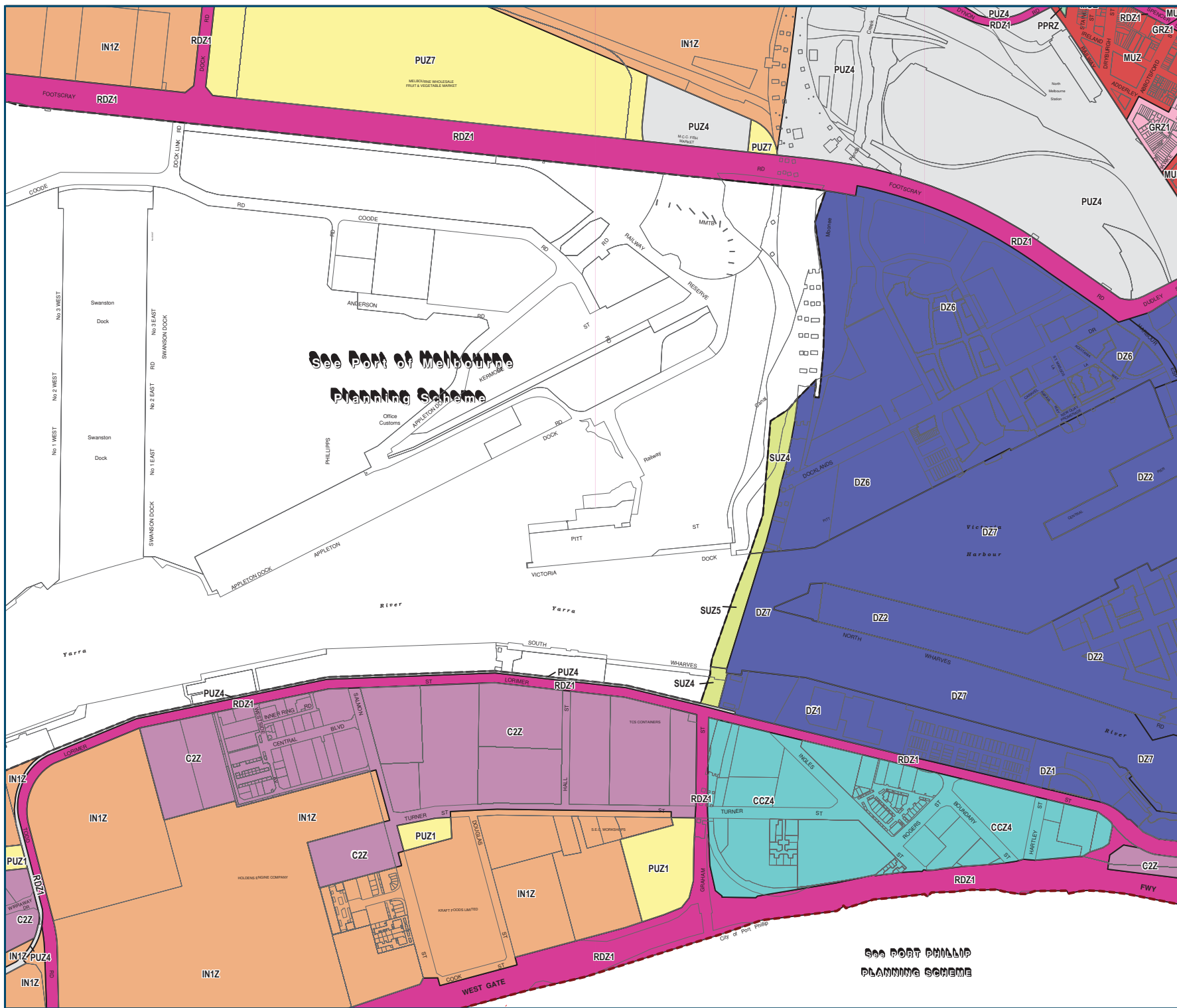


Printed: 21/5/2012

AMENDMENT C185

MAP No 7ESO

MELBOURNE PLANNING SCHEME - LOCAL PROVISION

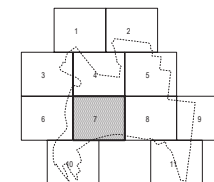


ZONES

- Commercial**
- C2Z Commercial 2 Zone
- Industrial**
- I1Z Industrial 1 Zone
- Public Land**
- PPRZ Public Park And Recreation Zone
- PUZ7 Public Use Zone - Other Public Use
- PUZ1 Public Use Zone - Service And Utility
- PUZ4 Public Use Zone - Transport
- RDZ1 Road Zone - Category 1
- Residential**
- GRZ1 General Residential Zone - Schedule 1
- MUZ Mixed Use Zone
- Special Purpose**
- CCZ4 Capital City Zone - Schedule 4
- DZ1 Docklands Zone - Schedule 1
- DZ2 Docklands Zone - Schedule 2
- DZ3 Docklands Zone - Schedule 3
- DZ4 Docklands Zone - Schedule 4
- DZ5 Docklands Zone - Schedule 5
- DZ6 Docklands Zone - Schedule 6
- DZ7 Docklands Zone - Schedule 7
- SUZ4 Special Use Zone - Schedule 4
- SUZ5 Special Use Zone - Schedule 5



INDEX TO ADJOINING MAPS

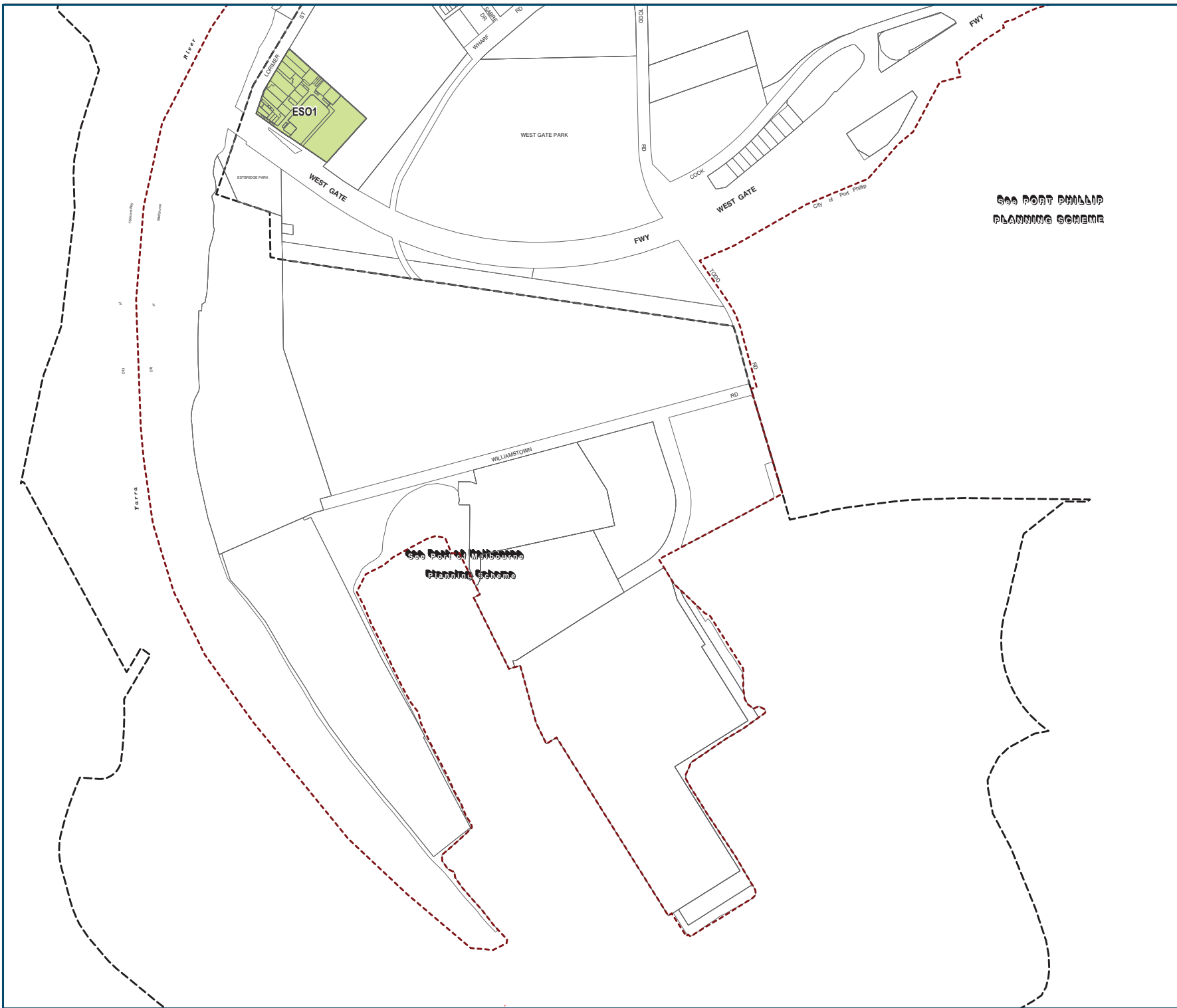


Printed: 24/11/2014

AMENDMENT C179

MAP No 7

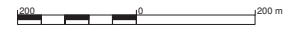
MELBOURNE PLANNING SCHEME - LOCAL PROVISION



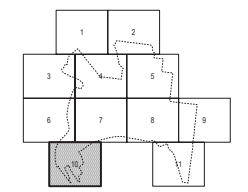
ENVIRONMENTAL SIGNIFICANCE OVERLAY

Overlays
 ES01 Environmental Significance Overlay - Schedule 1

SEE PORT PHILLIP PLANNING SCHEME



INDEX TO ADJOINING MAPS

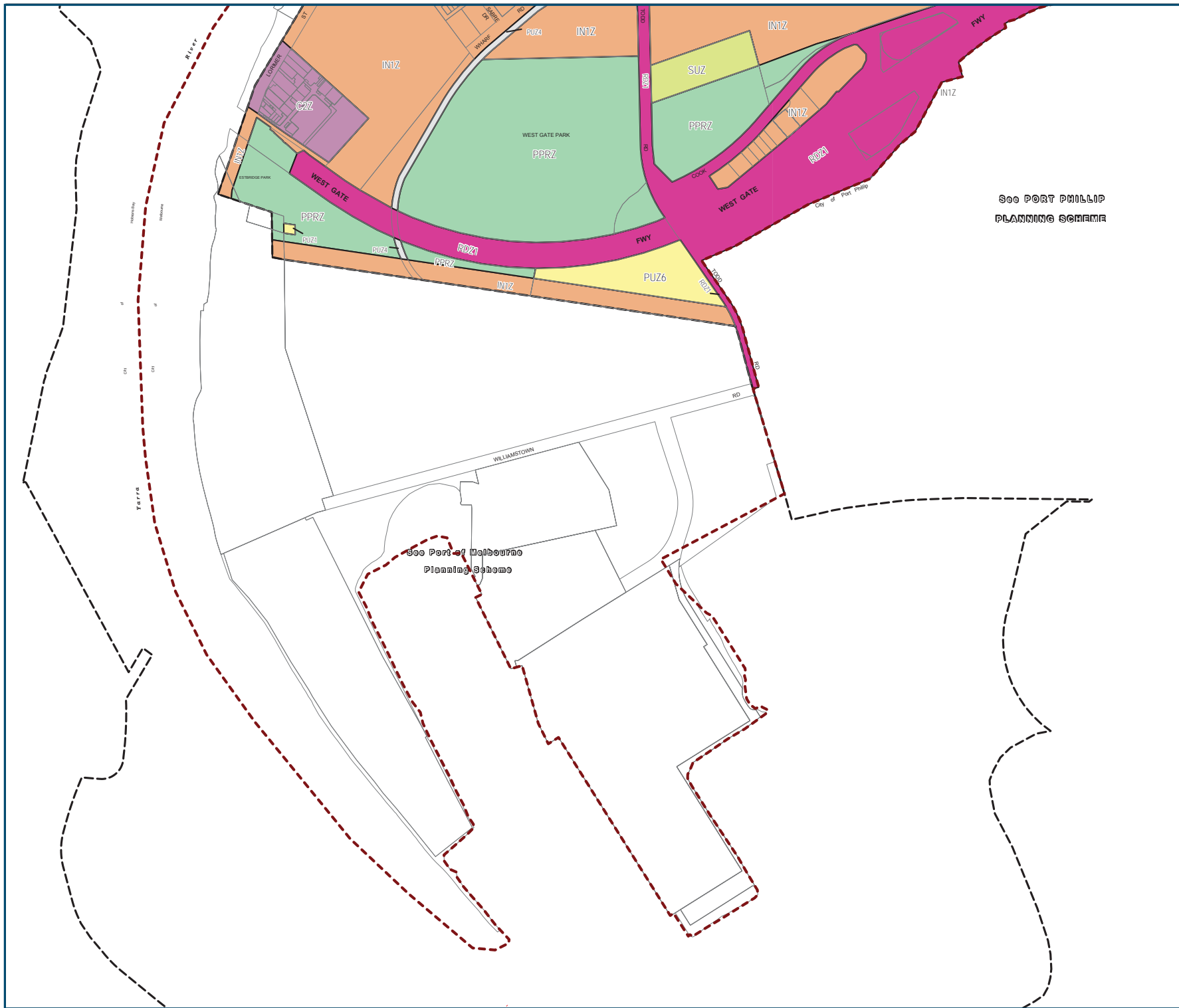


This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act.



* This map should be read in conjunction with additional Planning Overlay Maps (if applicable) as indicated on the INDEX TO MAPS.
 * A complete list of zones and other overlays is in the written part of this scheme.

MELBOURNE PLANNING SCHEME - LOCAL PROVISION

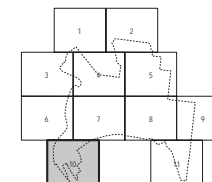


ZONES

- Commercial 2 Zone
- Industrial 1 Zone
- Public Land
- Public Park And Recreation Zone
- Public Use Zone - Local Government
- Public Use Zone - Service And Utility
- Public Use Zone - Transport
- Road Zone - Category 1
- Social Purpose
- Special Use Zone - Schedule 3



INDEX TO ADJOINING MAPS

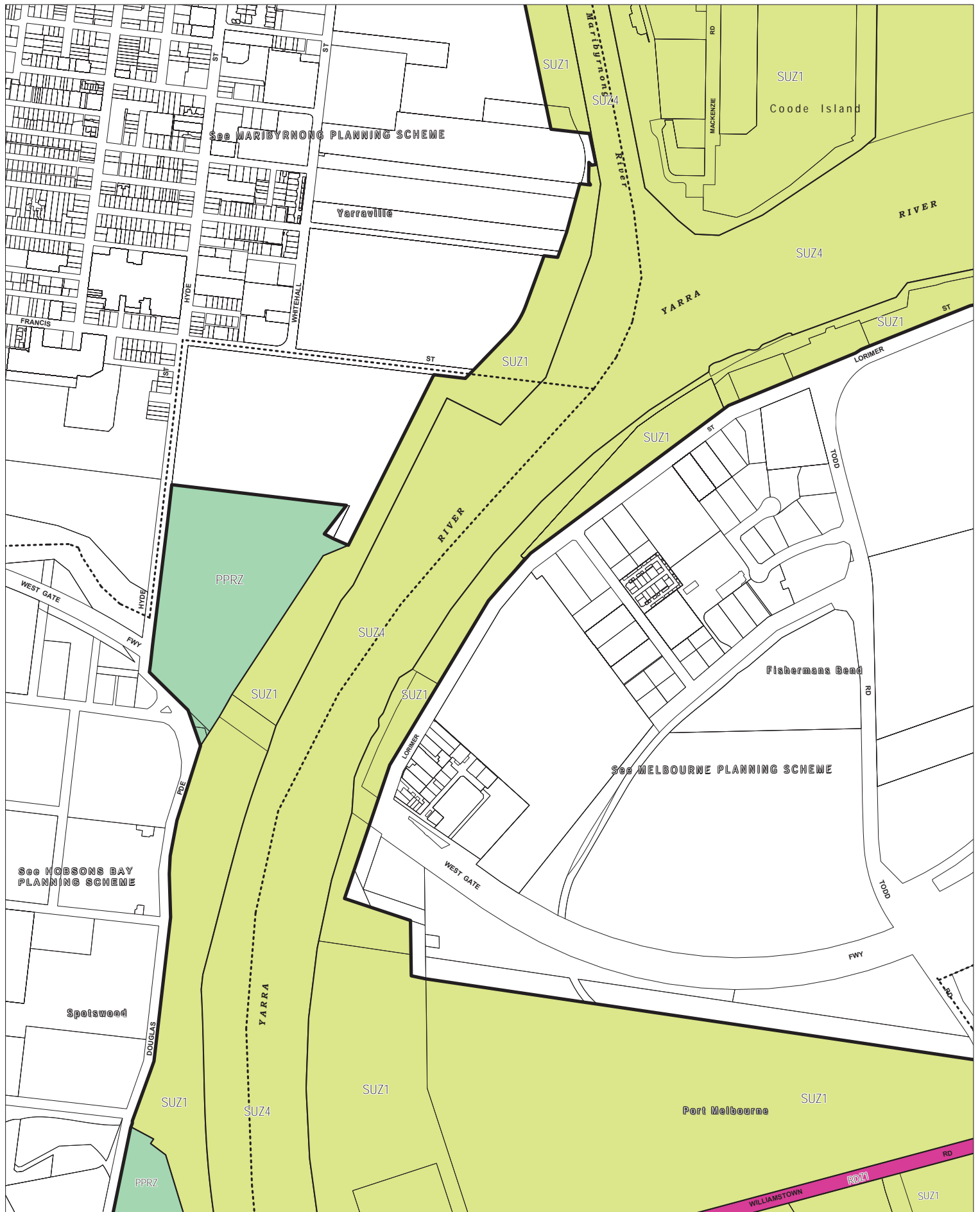


Printed: 29/5/2014

AMENDMENT GC9

MAP No 1

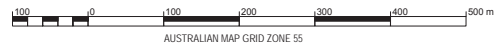
PORT OF MELBOURNE PLANNING SCHEME - LOCAL PROVISION



This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act. © State of Victoria.

This map should be read in conjunction with additional Planning Overlay Maps (if applicable) as indicated on the INDEX TO MAPS.

Color	Zone Name
Light Green	Public Land
Light Blue	Public Park And Recreation Zone (PPRZ)
Light Yellow	Road Zone - Category 1 (RDZ1)
Light Purple	Special Purpose
Light Orange	Special Use Zone - Schedule 1 (SUZ1)
Light Green	Special Use Zone - Schedule 4 (SUZ4)



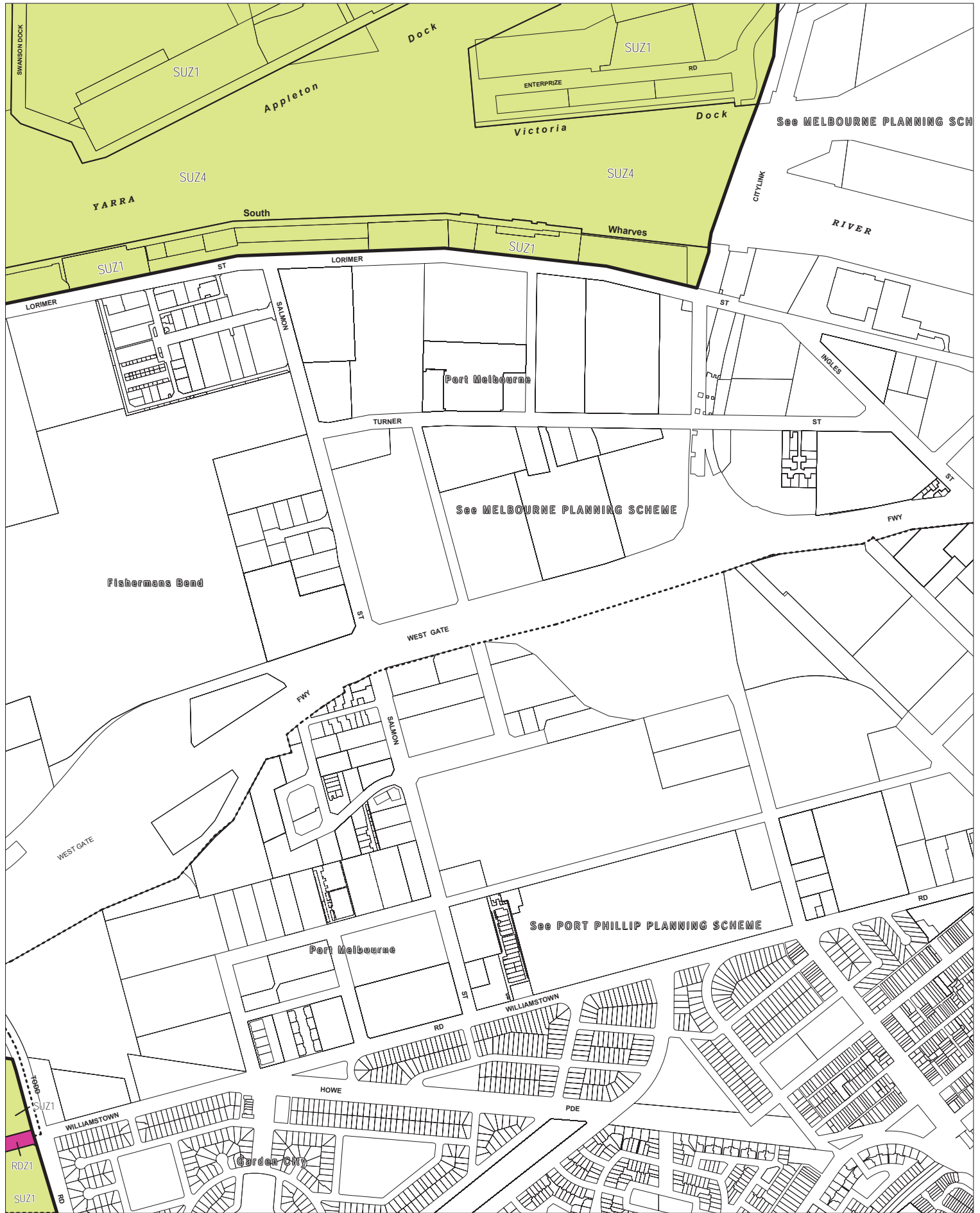
INDEX TO ADJOINING METRIC SERIES MAP

1	2
3	4
5	6 7 8
9	

Printed: 1/12/2008

NEW FORMAT PLANNING SCHEME

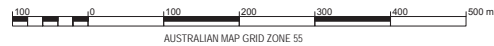
PORT OF MELBOURNE PLANNING SCHEME - LOCAL PROVISION



This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act. © State of Victoria.

This map should be read in conjunction with additional Planning Overlay Maps (if applicable) as indicated on the INDEX TO MAPS.

Public Land	Road Zone - Category 1
Special Purpose	Special Use Zone - Schedule 1
Special Use Zone - Schedule 1	Special Use Zone - Schedule 4
Special Use Zone - Schedule 4	



INDEX TO ADJOINING METRIC SERIES MAP

1	2
3	4
5	6
7	8
9	

Printed: 1/2008

NEW FORMAT PLANNING SCHEME



APPENDIX E

Important Information



IMPORTANT INFORMATION RELATING TO THIS REPORT

The document ("Report") to which this page is attached and which this page forms a part of, has been issued by Golder Associates Pty Ltd ("Golder") subject to the important limitations and other qualifications set out below.

This Report constitutes or is part of services ("Services") provided by Golder to its client ("Client") under and subject to a contract between Golder and its Client ("Contract"). The contents of this page are not intended to and do not alter Golder's obligations (including any limits on those obligations) to its Client under the Contract.

This Report is provided for use solely by Golder's Client and persons acting on the Client's behalf, such as its professional advisers. Golder is responsible only to its Client for this Report. Golder has no responsibility to any other person who relies or makes decisions based upon this Report or who makes any other use of this Report. Golder accepts no responsibility for any loss or damage suffered by any person other than its Client as a result of any reliance upon any part of this Report, decisions made based upon this Report or any other use of it.

This Report has been prepared in the context of the circumstances and purposes referred to in, or derived from, the Contract and Golder accepts no responsibility for use of the Report, in whole or in part, in any other context or circumstance or for any other purpose.

The scope of Golder's Services and the period of time they relate to are determined by the Contract and are subject to restrictions and limitations set out in the Contract. If a service or other work is not expressly referred to in this Report, do not assume that it has been provided or performed. If a matter is not addressed in this Report, do not assume that any determination has been made by Golder in regards to it.

At any location relevant to the Services conditions may exist which were not detected by Golder, in particular due to the specific scope of the investigation Golder has been engaged to undertake. Conditions can only be verified at the exact location of any tests undertaken. Variations in conditions may occur between tested locations and there may be conditions which have not been revealed by the investigation and which have not therefore been taken into account in this Report.

Golder accepts no responsibility for and makes no representation as to the accuracy or completeness of the information provided to it by or on behalf of the Client or sourced from any third party. Golder has assumed that such information is correct unless otherwise stated and no responsibility is accepted by Golder for incomplete or inaccurate data supplied by its Client or any other person for whom Golder is not responsible. Golder has not taken account of matters that may have existed when the Report was prepared but which were only later disclosed to Golder.

Having regard to the matters referred to in the previous paragraphs on this page in particular, carrying out the Services has allowed Golder to form no more than an opinion as to the actual conditions at any relevant location. That opinion is necessarily constrained by the extent of the information collected by Golder or otherwise made available to Golder. Further, the passage of time may affect the accuracy, applicability or usefulness of the opinions, assessments or other information in this Report. This Report is based upon the information and other circumstances that existed and were known to Golder when the Services were performed and this Report was prepared. Golder has not considered the effect of any possible future developments including physical changes to any relevant location or changes to any laws or regulations relevant to such location.

Where permitted by the Contract, Golder may have retained subconsultants affiliated with Golder to provide some or all of the Services. However, it is Golder which remains solely responsible for the Services and there is no legal recourse against any of Golder's affiliated companies or the employees, officers or directors of any of them.

By date, or revision, the Report supersedes any prior report or other document issued by Golder dealing with any matter that is addressed in the Report.

Any uncertainty as to the extent to which this Report can be used or relied upon in any respect should be referred to Golder for clarification.

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

For more information, visit golder.com

Africa	+ 27 11 254 4800
Asia	+ 86 21 6258 5522
Australasia	+ 61 3 8862 3500
Europe	+ 44 1628 851851
North America	+ 1 800 275 3281
South America	+ 56 2 2616 2000

solutions@golder.com
www.golder.com

Golder Associates Pty Ltd
Building 7, Botanicca Corporate Park
570 – 588 Swan Street
Richmond, Victoria 3121
Australia
T: +61 3 8862 3500

