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DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

WAGGA WAGGA SPECIAL ACTIVATION PRECINCT

PRELIMINARY SITE INVESTIGATION

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NOVEMBER 2019

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Wagga Wagga Special Activation Precinct Preliminary Site Investigation

Department of Planning, Industry and Environment

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ABBREVIATIONS

ACM	Asbestos containing materials
AEI	Area of Environmental Interest
ASS	Acid sulfate soils
BTEX	Benzene, toluene, ethylbenzene and total xylenes
CEMP	Construction environmental management plan
CLM	Contaminated land management
DP	Deposited plan
DPIE	Department of Planning, Industry and Environment
DQI	Data quality indicators
DQO	Data quality objectives
DSI	Detailed site investigation
EPA	Environmental Protection Authority
LEP	Local environmental plan
mAHD	metres relative to Australian Height Datum
mBGL	metres below ground level
NEPM	National Environment Protection Measure
OCP	Organochlorine pesticide
OPP	Organophosphorus pesticide
РАН	Polycyclic aromatic hydrocarbon
РСВ	Polychlorinated biphenyl
PFAS	Per and polyalkyl substances
РОЕО	Protection of Environment Operations
PSI	Preliminary site investigation
SOE	State of the Environment
TRH	Total Recoverable Hydrocarbon
UXO	Department of Defence unexploded ordnance

1 INTRODUCTION

1.1 BACKGROUND

In July 2018, the NSW Government announced Regional NSW's first Special Activation Precinct (SAP) at Parkes. A second SAP was announced in January 2019 in Wagga Wagga centred around Bomen Business Park. To date, the City of Wagga Wagga has undertaken work identifying the opportunities and constraints of the existing industrial estate. The Wagga Wagga SAP is investigating a broader area of approximately 4,180 hectares.

SAPs are a place-based approach to 'activate' strategic locations for job creation and regional economic development. SAPs are areas of State or regional significance that are selected based on an assessment of economic enablers, market failures and catalyst opportunities.

The NSW Department of Planning, Industry and Environment (DPIE) has commissioned WSP to prepare an Environmental Assessment for the Wagga Wagga Special Activation Precinct (Wagga Wagga SAP). This assessment is required to support the preparation of a Master Plan. This Environment Assessment includes biodiversity and bushfire, heritage, geology soils and contamination and hydrogeology specialist assessments.

This preliminary site investigation (PSI) reports the findings of the geology, soils and contamination specialist assessment.

1.2 OBJECTIVES

The objective of the PSI is to identify potential areas of environmental interest (AEI) which will assist in identifying development limitations/constraints within the investigation area with respect to contamination. The specific objectives of the PSI are to:

- identify and document current and historical land uses to identify potential sources of contamination and associated contaminants of concern, potentially affected media and potential human and ecological receptors
- assess contamination risk from a future development viewpoint
- prepare a report in accordance with NSW Environmental Protection Agency (EPA), 2011 Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites, detailing the findings of the PSI
- based on the findings identify any contamination issues and provide recommendation for further investigations (if required).

1.3 SCOPE OF WORKS

The following scope of works was completed for this PSI:

- completion of a desktop review of regional environmental setting and historical information comprising:
 - physical site setting information such as topography, geology, hydrology, hydrogeology, and potential sensitive receptors on or near the investigation area
 - review of information available from Wagga Wagga City Council
 - regulatory notices or records relating to potential contamination on the site issued by the NSW EPA
 - historical aerial photographs for investigation area and surrounds
 - review historical investigation reports for the investigation area (where available)
 - an overview of neighbouring properties to identify the presence and proximity of sensitive receptors which could be significantly impacted upon by the project
 - online search of the Department of Defence unexploded ordnance (UXO) database
- preparation of this PSI report.

2 DESKTOP INVESTIGATION

2.1 SITE SETTING

Details of the site investigation area and current operations have been interpreted from the desktop review and images available on Google Maps), a site coach tour on 21 June 2019 and communications with the broader project team. No detailed site inspections formed part of this investigation.

Pertinent site details are provided in Table 2.1.

Table 2.1 Site details

ITEM	DETAILS
Area of alignment	The investigation area is centred broadly on the existing Bomen industrial area. It extends to the west of the Olympic Highway and to the east of Byrnes Road, the two biggest north-south roads in the investigation area. The Main Southern railway line runs south to north approximately through the centre of the investigation area. The area also includes part of Cartwrights Hill in the south-west.
Local government area	Wagga Wagga City Council
Zoning	 The investigation area crosses multiple land use zones defined within the Wagga Wagga Local Environmental Plan 2010: IN1 – General Industrial IN2 – Light Industrial SP2 – Infrastructure RU1 – Primary Production RU6 – Transition R5 – Large Lot Residential E2 – Environmental Conservation RE1 – Public Recreation
Current land use	The investigation area is a mixture of light industrial, farmland, and residential properties. The light industrial land use is centred on the Bomen industrial precinct in the central southern portion of the investigation area, with the majority to the immediate west of the railway line. Land use includes food processing, fuel distribution, farm supplies stores, transport and animal sales. Further to the north, to the east of the railway line there are further light industrial properties including a battery recycling facility and a canola oil processing plant (Riverina Oils & Bio Energy [ROBE]). The list of current businesses is presented in Figure 1 and Table 2.2. Also within the current industrial area are a wastewater treatment plant (Bomen Industrial Sewage Treatment Facility), and three electrical substations. Residential properties of varying lot sizes are present in the south-west of the investigation area within the suburb of Cartwrights Hill. There is also a pocket of residential land use in the north- west of the investigation area within Brucedale. The balance of the investigation area is cleared agricultural land, with associated residential properties.

ITEM	DETAILS
Proposed land uses	The activation focus is on freight, logistics, manufacturing and agribusiness, supported by the development of the RiFL hub terminal and Inland Rail. There is also scope for the development of renewable energy industries. There is an approved development for a solar farm to the east of the existing light industrial land use to the east of Byrnes Road.
Area of site investigation	The investigation area is located to the north-west of the Wagga Wagga central business district. The approximate extent of the investigation area is 4,180 hectares.
Surrounding land uses	 The areas around the investigation area contain a variety of land uses including: to the north, west and east the major land use is vacant and farming land with detached residential dwellings on rural properties scattered throughout to the south-west and south of the investigation area is the township of Wagga Wagga and its associated suburban sprawl. The suburb of North Wagga Wagga is to the south of the investigation. Cartrights Hill extends outward from the south-west of the investigation area, with the suburbs of Boorooma and Estella, along with Charles Sturt University further to the west. Further to the south-west on the other side of the Murrumbidgee River, is the Wagga Wagga central business district.
Environmental Features	Agricultural activities are prevalent across the area and many farm dams are scattered across the investigation area. Ephemeral streams are also present across the investigation area.

Table 2.2 Current businesses

BUSINESS	DESCRIPTION
AGnVET Services	Animal and agricultural supplies business
Austrak	Concrete sleeper production
Baked Enamel	Resurfacing/coating business
Bidgeebong Wines	Wine Seller
BOC Limited	Supplier of compressed and bulk gases and chemicals
CHEP	Pallet supplier
Delta Agribusiness	Agricultural product wholesaler and agricultural services
Enirgi Group/Renewed Metals Technologies	Lead battery recycling facility
Fulton Hogan	Asphalt contractor
Great Southern Electrical	Electrical network design, installation and maintenance contractor
Heinz Watties	Food production company
Ladex Construction Group	Construction company
Land Transport	Transport company
LPG depot	LPG depot
Wagga Wagga Livestock Marketing Centre	Cattle, sheep and lambs marketing and sales centre
Nufarm	Agricultural chemical supplier
Proway Livestock Equipment	Farm equipment sales

BUSINESS	DESCRIPTION
Riverina Oils & Bio Energy (ROBE)	Canola oil producer
Riverina Sustainability Centre	Former wool combing facility, now home to warehousing facilities such as buildings supply company Metroll.
Rodney's Transport Services	Private transport and distribution business. The facility also has a Shell branded truck stop.
Southwest Trailers	Trailer builder and maintenance.
Southern Oil Refinery	Waste lube oil and PCB fluid recycling facility.
Steel Supplies	Steel distributor and fabrication
Tasco Petroleum	Caltex branded hydrocarbon fuel depot.
Teys Australia	Abattoir and meat processing plant. The facility has associated water treatment/bioenergy plant
Truck Art	Truck art and signwriting business
Vinidex	Piping manufacturer

2.2 PHYSICAL / ENVIRONMENTAL SETTING

Table 2.3

Physical site setting

ITEM	DETAILS	
Topography	The investigation area topography varies across the investigation area. Ridge lines, with elevations up to around 280 metres relative to Australian Height Datum (mAHD) run north-south near to both the western and eastern boundaries of the investigation area. The area between the ridges slopes generally toward the south-west, with an elevation of approximately 180 mAHD in the south-west of the investigation area. The land slopes down toward the Eunony Valley in the east. Source: SIXMaps – Accessed on 1 July 2019.	
Hydrology	 The western portion of the investigation area drains to Dukes Creek, an ephemeral surface water body whose main alignment approximately follows the Olympic Highway from north to south through the investigation area. Dukes Creek flows into the Murrumbidgee River approximately 4 km to the south-west of the investigation area. In the eastern portion of the site surface water drains into the Kurrajong lagoon on the Wheel Of Fortune Creek which is 3 km to the south-east of the investigation area. This lagoon drains into the Murrumbidgee River. Major man-made surface water features within the investigation area include ponds associated with the Wagga Wagga Livestock Marketing Centre and the ponds associated with the former 	
	wool combing facility to the east of Byrnes Road. Source – NSW SIX Maps	

ITEM	DETAILS
Soil landscapes	The investigation area is dominated by the East Bomen Soil Landscape.
	— The soils formed on the crests, upper slopes and mid-slopes of the East Bomen Soil Landscape are typically imperfectly drained, mottled eutrophic red dermosols (soils typically have a gradational colour and texture from surface to depth), which consist of a sandy loam topsoil (up to 20 cm) overlying reddish brown clay which lightens to yellow with depth (up to 200 cm).
	 The drainage lines are dominated by imperfectly drained, mottled eutrophic brown dermosols, which are characterised by a clay loam surface overlying reddish brown clay which transitions to yellow then orange with depth.
	— The East Bomen Soil Landscape is noted to have a moderate erosion hazard, are moderately acidic and have locally shallow soils. These present low limitations for urban development, slight to moderate limitations for cultivation and low limitations for grazing.
	Local low granitic hills and ridges within the project area comprise the Glenmornon Soil Landscape. This soil landscape is a vestigial soil landscape (soil landscapes where shallow soils have formed from in situ weathering of resistant parent materials)
	 This soil type is characterised by well-drained red kandosols, which generally consist of a dark red or reddish brown sandy loam surface overlying brown/yellow sandy clay or clay. Bedrock outcrops are common in areas of slope over 20%.
	— The soil type has a high erosion hazard and accordingly has high to extreme risk for foundations and urban capability, high to moderate limitations for grazing and extreme limitations for cultivations. It has areas of soil acidity and aluminium toxicity.
	A small portion in the south of the investigation area includes the Currawarna soil landscape associated with the Murrumbidgee Floodplain. This soil is listed as having low productive capacity due to very low potential fertility, and also has high erodibility.
	Source: Soil Landscapes, NSW Office of Environment and Heritage, 2018
Acid sulfate soils and salinity	The majority of site is located within an area recorded as having no known occurrence or low probability of acid sulfate soils. However, one section within the investigation area is listed as having a high probability for occurrence of acid sulfate soils. This section corresponds to the ponds associated with the former wool combing facility. The acid sulfate risk map is illustrated in Figure 2.
	Source: Google Earth Pro, National acid sulfate soil occurrence displayed from the Australian Soil Resource Information system – Accessed on 10 July 2019.
	No salinity potential was available for the investigation area through NSW Environment and Heritage website or Australian Soil Resource Information system.
	Wagga Wagga City Council maintains a network of salinity monitoring bores. Four of these are located within SAP area at the Bomen Industrial Sewage Treatment Facility. <i>Wagga Wagga Urban Salinity – Technical Report 2017-2018</i> reports a range of average electrical conductivities from 1.49 to 3.43 mS/cm which is indicative of a slightly saline groundwater condition.

ITEM	DETAILS
Geology	The investigation area is located within the northern portion of the regional Wagga Wagga 1: 250 000 geological sheet (Adamson & Loudon, 1966). Mapped surface geology comprises multiple Quaternary depositional environments from processes dominated by water (alluvium) to gravitation deposition (colluvial), overlying Ordovician granites that locally outcrop on topographic highs. Geological units underlying the investigation area are described in further detail in the associated Hydrogeology assessment.
Hydrogeology	The WSP report, <i>Desktop Hydrogeology Assessment, Special Activation Precinct, Wagga Wagga</i> (WSP 2019) contains details of the hydrogeology of the investigation area.
	The southern portion of the investigation area is characterised by the Wagga Wagga alluvial groundwater aquifer which is associated with the Murrumbidgee River.
	Further north groundwater is associated with the Lachlan fractured rock system which is anticipated to contain a shallow weathered regolith aquifer and a deeper bedrock aquifer.
	Groundwater in the alluvial aquifer is expected to be flowing toward the west, while in the fractured rock system, shallower water flow is anticipated to follow topography while deeper water is inferred to flow to the west.
Groundwater/surface water interaction	A surface water assessment for the SAP was carried out by Rhelm in 2019 (<i>Wagga Wagga Special Activation Precinct Flooding and Water Quality Scenario Testing Report</i>). The report noted that there was the potential for leachate from landfills in the SAP (although none have specifically been identified) and other groundwater inflows to gaining streams to affect surface water quality.
	The Rhelm assessment also noted that aquifer recharge most likely will not be an appropriate water sensitive urban design approach in the SAP "given the soil and geology conditions and the potential risks associated with contaminant mobilisation".

2.3 GROUNDWATER DATABASE SEARCH

The groundwater assessment *Desktop Hydrogeology Assessment, Special Activation Precinct, Wagga Wagga* (WSP 2019) includes a review of registered groundwater bores, including a search of the Bureau of Meteorology and WaterNSW's register. 86 registered bores were found within the investigation area. The bores within and in close proximity to the industrial land use areas are all listed as being for monitoring purposes.

The wells not listed for monitoring closest to the industrial land use include:

- GW019939, listed for irrigation purposes, approximately 1.5 km to the north-east of the wool combing ponds
- GW024160, listed for stock/domestic purposes 3 km east of the battery recycling facility
- GW010925, listed for stock purposes, approximately 1 km west of the wool combing ponds
- GW403575, listed for stock/domestic purposes, approximately 1.5 km west of the abattoir.

There is a higher concentration of bores for private and town water supply in the south-east and to the south-east, south and south-west of the investigation area. Water is extracted from the alluvial aquifer for the town water supply from the "East Wagga Wagga Bore Source" and from the "North Wagga Wagga Water Source Works" from a depth of between 40 and 70 m. Groundwater is treated with aeration, chlorination and fluoridation.

2.4 SENSITIVE RECEPTORS

A sensitive receptor is human or ecosystem which may be susceptible to deleterious impacts if exposed to contamination. Environmental receptors include several farm dams located throughout the investigation area., Dukes Creek and Wheel Of Fortune Creek whose tributaries run through the investigation area, and groundwater beneath the investigation area and groundwater dependent ecosystems.. Down-gradient of the investigation area is the Murrumbidgee River, which is the discharge point of surface water from the investigation area.

Human receptors include:

- residents
- farm workers
- commercial workers
- users of groundwater, including for municipal water supply.

2.5 DATABASE SEARCH OF POTENTIAL CURRENT AND FORMER CONTAMINANT SOURCES

A review of a database search of potential current and former contaminant sources in the vicinity of the site is presented in Table 2.4 below. A figure showing areas of potential risk based on the findings of the registers below is included as Figure 2 in Appendix A.

ITEM	DETAILS
List of contaminated sites regulated by or notified to the NSW EPA	There is one site in the investigation area that has been notified to the EPA under the Contaminated Land Management (CLM) Act 1997 (NSW) - the Tasco Petroleum Fuel Depot. It was assessed by the EPA as regulation not being required. There are no sites under regulation within the investigation area. Source: NSW EPA List of NSW contaminated sites notified to EPA
Current NSW EPA licensed activities	There are 11 facilities within the investigation area that perform a licensed activity under the <i>Protection of the Environment Operations Act 1997</i> (POEO Act).
	 Riverina Oils & Bio Energy Pty Ltd holds a POEO licence for agricultural processing. Enirgi Power Storage Recycling Pty Ltd holds a POEO licence for metallurgical activities and resource recovery. BOC Limited holds a POEO licence for chemical production, chemical storage and waste storage. Wagga Wagga City Council holds a POEO licence for livestock intensive activities at the Livestock Marketing Centre. Austrak Pty Ltd holds a POEO licence for concrete works. Southern Oil Refining Pty Ltd holds a POEO licence for petroleum products and fuel production, resource recovery, waste processing and waste storage. Tasco Inland Australia Pty Ltd holds a POEO licence for chemical storage. Wagga Wagga City Council holds a POEO licence for sewage treatment at the Bomen Industrial pre-treatment sewage treatment facility. Rodney's Transport Services Pty Ltd holds a POEO licence for waste storage (hazardous, restricted solid, liquid, clinical and related waste and asbestos waste).

Table 2.4 Search of potential current and former contaminant sources

ITEM	DETAILS
	 Teys Australia Southern Property Pty Ltd holds a licence for livestock processing activities. H.J. Heinz Company Australia Limited holds a licence for livestock processing activities.
	Source: NSW EPA POEO Public Register: Search for Licenses
Clean Up/Penalty Notices	The following sites have a record of notice issued by the EPA under Section 55 of the Protection of the Environment Operations (POEO) Act 1997:
	 H.J. Heinz Company Australia Limited, for not submitting an annual return (July 2018) Enirgi Power Storage Recycling Pty Ltd Notice 3085765715, offense "Pollute waters – Corporation" (September 2012)
	The following site had a clean-up notice issued to it in March 2011:
	 Riverina Wool Combing Pty Ltd, in relation to waste material present following the cessation of activities at the site.
	Source: NSW EPARecords of Notice
Former licensed activities, now revoked	There were three former licensed activities under the POEO Act, now revoked or surrendered in or nearby to the investigation area.
or surrendered	 Austrak Pty Ltd for 53 Webb Street, Bomen (surrendered 2013– for concrete works) Buckman Laboratories 212 East Bomen Road (surrendered 2013 – for chemical production) Riverina Wool Combing Pty Ltd (surrendered 2014– for greasy wool or fleece processing) Laminex (Australia) Pty Ltd (surrendered 2002- for waste generation (including use of effluent for irrigation)
	Source: Former Licensed Activities register,
Delicensed activities still regulated by the NSW EPA	 There is one delicensed activity regulated by the EPA within the investigation area: Pioneer Road Services Pty Ltd, Lot 4 Bomen Road, Wagga Wagga (Bitumen Mixing) Pioneer Road Services is understood to have been acquired by Fulton Hogan. Source: POEO Public Register:
Former gasworks	There are no nearby former gas works noted within the investigation area.
	Source: NSW EPA Location of former gasworks sites
	There are two former gasworks sites in Wagga Wagga, but both are on the other side of the Murrumbidgee River to the investigation area.
National waste management site data	There are two properties on the National Waste Management Site Database within the investigation area:
base	 The Southern Oil recycling facility within the Bomen industrial area The battery recycling facility on Byrnes Road.
	Source: Geoscience Australia, Waste Management Facilities

DETAILS
There are no nearby sites listed on the EPA per- and polyfluoroalkyl substances PFAS investigation program within the search area.
Two sites are in the greater Wagga Wagga area, the Blamey Barracks at Kapooka to the south- west of the Wagga Wagga CBD and the Wagga Wagga RAAF base at the Wagga Wagga airport.
Source: PFAS investigation program, New South Wales Environment Protection Authority
The site is not located in an area where unexploded ordinance is known occur.
Source: Department of Defence Unexploded Ordnance database
No cattle dips were identified within the investigation area.
Source: Department of Primary Industries Cattle Dip Site Locator, <u>https://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/health-and-disease/parasitic-and-protozoal-diseases/ticks/cattle-dip-site-locator</u> - Accessed on the 20 June 2019.

2.6 REVIEW OF HISTORIC AERIAL PHOTOGRAPHS

A review of historical aerial photography covering the site and surrounding area was undertaken with a summary of the observed land use changes described in Table 2.5. Historical aerial photographs are presented in Appendix B.

Table 2.5Historical aerial photograph review

YEAR	ONSITE OBSERVATIONS	SURROUNDING LAND OBSERVATIONS
1971	Area of investigation is generally vacant/farmland. The Main Southern railway line runs through the area in its current alignment. Buildings are present in the current location of the Teys abattoir. Residential dwellings are present along Bomen road close to the railway line. Orchards appear to be present to the west of the residences. The Olympic Highway and Byrnes road are visible within the investigation area.	Surrounding land is generally vacant/farmland.
1980	 An additional building is present, in the current location of the Heinz Watties facility. The orchards from the previous image have reduced in size. A shed has been built in the Bomen industrial estate. Development has occurred at the Wagga Wagga Livestock Marketing Centre and its associated ponds have been constructed. A shed-like building is present at the wool combing facility site. Residential development of Cartwrights Hill has started. 	The image is generally consistent with previous image.
1995	 There is further development of lots within the Bomen industrial precent to the west of the railway line, including the construction of the Caltex fuel depot. The ponds linked to the abattoir have been constructed. East of the railway line, the lot where Vinidex is currently present has been developed to its current configuration and there is significant land disturbance to its east. Land to the north-east of the Vinidex facility has been recontoured. The ponds associated with the wool combing facility have been constructed as have more buildings. 	Consistent with previous image.

YEAR	ONSITE OBSERVATIONS	SURROUNDING LAND OBSERVATIONS
	There is further residential development of Cartwrights Hill. The residential development of the north-west of the investigation area has commenced.	
2004	There is further development of lots within the Bomen industrial precent to the west of the railway line, including the Southern Oil facility and the Rodney's Transport facility. A small building has been constructed to the south of the wool combing facility. The land on the southern corner of the Byrnes Road and East Bomen Road has been recontoured.	Consistent with previous image.
2010	There is further development of lots within the Bomen industrial precent to the west of the railway line. The wastewater treatment plant south-west of the livestock marketing centre ponds has been constructed. The electrical substations present in the industrial area, to the west of the abattoir and to the east of Vinidex facility have been constructed. The BOC facility to the west of Byrnes Road has been constructed. Another building has been constructed to the south of the wool combing facility. Construction is underway at the ROBE facility.	Consistent with previous image.
	A linear trench crossing several blocks can be seen in the investigation area to the east of the railway line. It is believed that this is a gas pipeline installation.	
	The residential development in the north-west of the investigation area appears to be in its current form.	
2014	There is further development of lots within the Bomen industrial precinct to the west of the railway line.	Consistent with previous image.
2019	Land use is largely consistent with the previous image.	Consistent with previous image.

2.6.1 HISTORIC SUMMARY

Based on the historical images the majority of the investigation area has been vacant/farmland from at least 1971. The present Teys abattoir building was present in the earliest reviewed aerial photograph from 1971. Development of the Bomen industrial precinct to the west of the railway continued over the following decades, with major land users including the Wagga Wagga Livestock Marketing Centre (present from 1980), the Caltex/Tasco fuel depot (from 1995) and the Rodney's Transport facility (from 2004).

To the east of the railway line, development is visible from 1980, with a building present at the historic wool combing facility location. Development continued in subsequent decades, with major features including the wool combing ponds, what is currently the Vinidex facility, the battery recycling facility buildings and the ROBE facility.

Residential land development occurred from at least 1980 in Cartwrights Hill in the south-west of the investigation area and a small amount of smaller residential lots in the north-west of the investigation area.

The land uses surrounding the investigation area have remained relatively consistent over time, consisting of vacant/farmland with associated residential properties.

2.7 WAGGA WAGGA CITY COUNCIL INFORMATION

WSP was provided with Wagga Wagga City Council's contaminated sites GIS layer, which highlights potential or actual contaminated sites. Council also provided a development history of the Bomen industrial precinct, this is provided in Appendix C. The following tables lists the sites within the investigation area. Additional comments are given to link the lots to the other desktop information gathered in this investigation. Where pertinent, information from the Wagga Wagga City Council online property search website

(https://eservices.wagga.nsw.gov.au/T1PRWeb/eProperty/P1/eRates/RatingInformationSearch.aspx?r=WW.P1.WEBGU EST&f=P1.ERA.RATINFO.ENQ) has also been used.

LAND PARCEL	DETAILS AND OTHER OBSERVATIONS
1 Dampier Street (Lot 1, DP 1213252)	The layer lists this as a waste storage hazard. This property is the Teys Australia abattoir. The lot also includes several ponds, including some covered in black plastic, which are believed to operate as a bioenergy plant. The site holds a POEO licence for animal processing. Council records indicate it has operated since 1951.
40, 82, 84, 102 Bomen Road, Bomen (Lot 15 & 16, DP 1068876, Lot 7, DP 830975, Lot 4, DP 610914)	This is listed on the council database for acid and lead batteries storage. The property is the Rodney's Transport facility. Business listings and Google Street view indicates that there is also fuel sales at this location. The aerial photos show several large silos/storage tanks in the rear of the property. In the most recent aerial photo (2019), several soil stockpiles are also present in the rear of the site. The site has a POEO licence for waste storage.
101, 103 Bomen Road (Lots 1 and 2, DP 1202669)	This is listed on the database as having agrichemicals storage. The site is currently used as a wastewater treatment plant which extends across surrounding land. Consent for its construction was granted in 2001. Wagga Wagga City Council holds a POEO license for sewage treatment at this facility (and at others in the greater Wagga Wagga area).
20 Jersey Street (Lot 11, DP 1132424)	This is an Essential Energy substation. It was constructed between 2004 and 2010.
1 Dampier Street (Lot 4, DP576937)	This is an Essential Energy substation. It appears to have been constructed between 1971 and 1980.
23 Bomen Road (Lot 8, DP259505)	This is listed as iron and steel works. This is the Steel Supplies business.
19 Bomen Road (Lot 15, DP 1130343)	This is listed for metal fabrication. This is Proway Livestock Equipment.
15 Lewington Street (Lot 1, DP 576940)	Council records indicate that this address was previously used as a fellmongery. Dams are visible on the site in the 1980 aerial photo, but are no longer present in 1995.
34 Lewington Street (Lot 5, DP 1217349)	This is listed for oil refining. This is the Tasco Petroleum fuel depot. The site holds a POEO licence for chemical storage. Several above ground storage tanks are visible at the site.
42 Lewington Street (Lot 4, DP 1217349)	This is listed for oil refining. This is the Southern Oil facility. This site holds a POEO licence for petroleum products and fuel production, resource recovery, waste processing and waste storage. Southern Oil publishes their environmental monitoring data on their website (<u>http://www.sor.com.au/compliance</u>). The most recent monitoring from March 2019 indicated that hydrocarbon and benzene, toluene, ethylbenzene and xylene concentrations were below the laboratory limit of reporting in four monitoring wells at the site. The precise location of the wells is not known.

Table 2.6 Sites listed on the council contaminated land GIS layer or notable sites from Bomen development history

LAND PARCEL	DETAILS AND OTHER OBSERVATIONS
30 Webb Street (Lot 4, DP 849385)	Listed as an asphalt plant. This is the Fulton Hogan facility. The development consent for its construction was granted in 2006.
20 Hereford Street (Lot 14, DP 706964)	This is listed for metal products (Doctor Scrap Pty Ltd). Waste materials are visible at the site from the 2010 aerial photo onwards.
53 Lewington Street (Lot 1, DP 259924)	This is listed for agrichemical storage. It is the Nufarm premises.
280 Byrnes Road (Lot 1, DP 260958)	The council information lists this for petrochemical storage. This is the location of Vinidex Pty Ltd which manufactures pipeline parts.
	Development application (DA) records at this location indicate that the site was previously occupied by Laminex, and timber processing was believed to have been undertaken. Historic aerial photos show that there has been periods of significant ground disturbance in the rear of the lot, and several dams/ponds are present.
	A soil conservation project was undertaken in the 1980s where Laminex used land further to the north-east (Lot 22 DP1085826) to dispose of waste material from its production facility. According to information provided by Council in the form of a technical newsletter by the New South Wales Soil Conservation Service, eroded gullies were filled with "sandadust" which consisted of pine fibres, dust and sandings from finished fibre board, glue (urea formaldehyde and paraffin wax. The waste cells were topped up and filled with a clay membrane and then topped with cow manure as top soil. This corresponds to an area where land disturbance is visible on the aerial photographs from 1995.
352 Byrnes Road (Lot 1 and 2, DP 1228221)	The council layer lists this as a wool/hide/skin merchant. It is currently occupied by winemaker Bidgeebong Wines.
	DA records indicate that the site was previously used as a 'fellmongering plant with storage of liquid waste and irrigation to improved pastures on the land being practised'. A DA for building works was issued to Michell Sheepskins Pty Ltd in 1994. Records also indicate that remediation was previously carried out on the former effluent dam, with a follow-up report produced in 1998, but further information is not provided.
354 Byrnes Road (Lot 2, DP 1221188)	The council layer says power generation. This is the BOC facilities. The lot is subject to a POEO licence for chemical production, chemical storage and waste storage.
212 East Bomen Road (Lot 3, DP 594679 and Lot 21 DP 1128492)	The council later lists this for Analytical laboratories (Lot 3, DP 594679) and corrosives formulation (Lot 21 DP 1128492). This is the location of the battery recycling facility. It is believed to have been previously co-occupied by Buckman Laboratories given the surrendered POEO licence listed for this location for chemical production. The battery recycling facility holds a POEO licence for metallurgical activities and resource recovery.
	Development consent was granted in early 2019 for an expansion of the operations of the battery recycling facility. A contaminated land investigation was undertaken at the site in 2018 by GHD, which identified surficial soil impacted by lead at concentrations exceeding human health and ecological investigation levels. The development consent requires the appointment of a site auditor and approval of a remediation action plan and a Section B Site Audit Statement prior to remediation, and a Section A Site Audit Statement following remediation demonstrating site suitability for industrial land use.
	Under the auditor scheme the auditor will need to comment on any off-site contamination migration risk or risks to environmental receptors.

LAND PARCEL	DETAILS AND OTHER OBSERVATIONS
560 Byrnes Road (Lot 1 and 2, DP771340)	This is listed for dangerous goods storage and waste treatment/storage. The lots consist of buildings in the south and several ponds/dams in the north. This is the former wool combing facility. It is noted that Lots 2 and 4, DP1249028 to the north contain further ponds associated with the wool combing facility. The council website contains a copy of a Statement of Environmental Effects completed by NGH Environmental 2019 to convert one of the northern ponds into a non-putrescible landfill. This included a contamination assessment which confirmed the presence of heavy hydrocarbons in sediment samples, attributed to waxy residue from the wool combing process, and noted that remediation or removal of affected material would be required. Only one monitoring well at the site contained water and could be sampled. In this well pesticide and hydrocarbon concentrations were below the laboratory limit of detection. Anecdotal evidence from community groups suggested that during heavy rainfall events, there was overflow of contaminated surface water onto the surrounding sites.
177 Trahairs Road (Lot 12 DP 1130519)	This is listed for being an "oil refinery". It is the Riverina Oils & Bio Energy (ROBE) facility. The lot holds a POEO licence for agricultural processing.

3 AREAS OF ENVIRONMENTAL INTEREST

A number of AEIs have been identified during the desktop information review. Based on the information contained within Section 2 of this report Table 3.1 below outlines the potential AEIs located in the vicinity of the project area. Where specified to lots they are shown in Appendix A, Figure 3.

POTENTIAL AEI	POTENTIAL CONTAMINATION SOURCE	CONTAMINANT OF CONCERN	POTENTIAL IMPACT
General agricultural activities (sections of the investigation area have historically comprised of farm land)	Land application of pesticides. Use of hazardous materials (e.g. asbestos) in structures.	Pesticides, heavy metals, asbestos.	Surface soil impacted by pesticide applied to farmland. Surface soils impacted by former structures.
Farm dams (several located within the investigation area)	Land application of pesticides	Pesticides, heavy metals, nutrients	Accumulation of pesticides applied to land via surface run- off
Former Riverina Wool Combing Facility (Lot 1 and 2, DP771340, Lots 2 and 4, DP1249028)	Storage and/or scouring of wool	TRH (confirmed), pesticides, heavy metals, chloride, sulfate, carbonate, nutrients, pH	Localised surface soil impacted by chemical spillage. Contaminated sediment accumulation in evaporation ponds. Groundwater impacted by seepage from ponds.
Former wool hide merchant (Lots 1 and 2, DP 1228221)	Storage and scouring of wool	TRH, pesticides, heavy metals, chloride, sulfate, carbonate, nutrients, pH	Localised surface soil impacted by chemical spillage. Contaminated sediment accumulation in evaporation ponds. Groundwater impacted by seepage from ponds.
Former Laminex facility (Lot 1, DP 260958) and associated filled land (Lot 22, DP1085826).	Wood processing and treatment	Solvents, PAHs, pesticides, heavy metals, ammonia, cresols.	Surface soil impacted by chemical spillage. Waste process deposits applied to land (associated leachate/gas generation).
Rail land and associated sidings	Contaminants in ballast/rail materials. Residue from rail operations/train materials.	TRH, PAHs, heavy metals, pesticides, herbicides, asbestos	Surface soil impacted by chemical spillage.

Table 3.1Potential areas of environmental interest

POTENTIAL AEI	POTENTIAL CONTAMINATION SOURCE	CONTAMINANT OF CONCERN	POTENTIAL IMPACT
Enirgi Battery Recycling Facility and former Buckman chemical manufacturing (Lot 3, DP 594679 and Lot 21 DP 1128492)	Spillage of chemicals/residue in battery recycling/chemical manufacturing.	Heavy metals (lead impacts are confirmed), acids, solvents, chemicals (depending on what was manufactured).	Surface soil impacted by chemical spillage. Surface/groundwater impacts from irrigation using waste water.
BOC facility (Lot 2, DP 1221188)	Spillage of chemicals	TRH and other potential chemicals stored.	Surface soil impacted by chemical spillage.
Electrical substations – Lot 11, DP1132424, Lot 4, DP576937, Lot 1, DP1115229	Spillage or leaking of dielectric fluid or transformer oil	TRH, PAHs, heavy metals, PCBs	Natural soils under the fill material impacted and potential migration offsite via runoff
Fulton Hogan asphalt plant - Lot 4, DP 849385	Spillage of asphalt materials	TRH, PAHs, metals	Surface soil impacted by chemical spillage.
Tasco Petroleum Fuel depot (Lot 5, DP 1217349)	Spillage/leakage of hydrocarbons. Degradation of pipework.	TRH, PAHs, oil and grease, solvents, asbestos, PFAS.	Surface soil impacted by chemical spillage. Groundwater impacted by seepage or sub- surface leakage.
Southern Oil Refinery (Lot 4, DP 1217349)	Spillage/leakage of hydrocarbons, waste products.	TRH, PAHs, oil and grease, solvents, PCBs,	Surface soil impacted by chemical spillage. Groundwater impacted by seepage or sub- surface leakage.
Teys abattoir (Lot 1, DP 1213252)	Spillage/runoff of effluent/waste materials.	Nutrients, biological oxygen demand, total suspended solids, oil and grease, pesticides.	Sediments/surface water in dams/ponds. Surface soils.
Wagga Wagga Livestock Marketing Centre (Lot 22, DP1120176).	Spillage/runoff of effluent/waste materials.	Nutrients, biological oxygen demand, total suspended solids, oil and grease, pesticides.	Sediments/surface water in dams/ponds. Surface soils.
Former fellmongery (Lot 1, DP 576940)	Storage and scouring of wool/skins	TRH, pesticides, heavy metals, chloride, sulfate, carbonate, nutrients, pH	Localised surface soil impacted by chemical spillage. Contaminated sediment accumulation in evaporation ponds. Groundwater impacted by seepage from ponds.
Various agricultural chemical retailers/wholesalers.	Spillage of chemicals	Nitrates, ammonia, pesticides	Surface soil impacted by chemical spillage.

POTENTIAL AEI	POTENTIAL CONTAMINATION SOURCE	CONTAMINANT OF CONCERN	POTENTIAL IMPACT
Rodney's Transport facility (Lots 15 & 16, DP 1068876, Lot 7, DP 830975, Lot 4, DP 610914)	Storage of hazardous goods, petroleum storage, waste storage.	TRH, PAHs, heavy metals, pesticides, herbicides, asbestos	Surface soil impacted by chemical spillage, groundwater impacted by underground fuel storage leakage.
Land Transport (Lot 2 DP 259924)	Potential storage of hydrocarbons	TRH, PAHs	Surface soil impacted by chemical spillage, groundwater impacted by underground fuel storage leakage.
Bomen Industrial Wastewater Treatment Plant (Lots 1 and 2, DP 1202669)	Leakage of effluent/waste streams	Nutrient, heavy metals, phenols, pathogens.	Surface soils/waters impacted by effluent spillage.
Metal fabrication businesses (Lot 8, DP259505, Lot 15, DP 1130343)	Spillage of chemicals.	Heavy metals, acids, solvents, cyanide.	Surface soil impacted by chemical spillage.
Austrak concrete production facility (Lot 23, DP 1227522)	Spillage of chemicals	Lime, alkalis, hydrocarbons	Surface soil impacted by chemical spillage.
Scrap metal storage (Lot 14, DP 706964)	Residue of waste materials	TRH, asbestos, heavy metals, PAHs, pesticides	Surface soil impact.

 $TRH-total\ recoverable\ hydrocarbon;\ PAHs-polycyclic\ aromatic\ hydrocarbons,\ PCB-polychlorinated\ biphenyl$

4 CONCLUSIONS AND RECOMMENDATIONS

WSP was engaged by DPIE, who are leading the environmental and planning studies associated with the special activation precinct (SAP) at Wagga Wagga, NSW. The purpose of the assessment was to determine potential contamination sources, historical or current, for any future developments which may occur during the implementation of the SAP and to help with the development of a master plan.

The PSI identified that most of the investigation area was vacant/farmland from the earliest available image (1971). The Teys abattoir was present in 1971 as the first facility in the Bomen industrial area, and has reportedly operated since 1951. Over the following decades the Bomen industrial area to the west of the railway line was progressively developed with various light industrial and commercial businesses. Development also proceeded to the east of the railway line adjacent to Byrnes road. A small number of residential properties exist in the south-west and north-west of the investigation area.

Identified sensitive receptors in the investigation area include:

- residents
- farm workers
- future and current commercial workers
- users of groundwater there are a limited number of bores within the fractured rock aquifer which underlies the
 majority of the investigation area registered to stock/domestic use. The remaining alluvial aquifer is also utilised for
 private use, and downstream of the investigation area for the town water supply.

The PSI has identified several potentially contaminating activities within the investigation area as outlined in Chapter 3 of this report. The vast majority of these are regulated by the NSW EPA under POEO legislation. It is expected that the bulk of these land uses would continue as the area is developed further through the SAP process. Under current planning guidance for contaminated sites, which is governed by State Environmental Planning Policy 55 – Remediation of Land, further investigation of all identified AEI's would be required if development was proposed or if they were to be rezoned. Details of such further assessment should be included in the development standards for the SAP. Investigations would include at a minimum a detailed site inspection and interview of previous occupants to clarify specific land use. This would inform further requirements for intrusive investigations. For ongoing site use, the individual site operators and/or land owners have an obligation to investigate the land if they suspect that the land may be contaminated, under the duty to report obligations governed by the Contaminated Land Act 1997.

Historical land uses in the investigation area which have ceased, and where contamination risks associated with these land uses may not have been closed out and are not subject to current regulation are considered priority areas of concern. Impacts are documented to exist in the former evaporation ponds associated with the Riverina Wool Combing facility (560 Byrnes Road), a site for which a clean-up notice was issued in 2011. Wool treatment/processing was also previously undertaken at 352 Byrnes Road. Significant land disturbance can be seen on historical aerial photographs at 280 Byrnes Road which was previous occupied by Laminex who undertook wood processing and treatment. Waste from this facility was disposed of on a nearby block of land. The former fellmongery at 15 Lewington Street is also considered a priority area of concern.

Based on the findings of this PSI the following is recommended:

- Inclusion of requirements for detailed site investigations (DSIs) to further understand the contamination risk to neighbouring lots for the priority areas of concern in the development standards for the SAP.
- On-going liaison with council to monitor that contamination conditions associated with the approved expansion of the Enirgibattery recycling facility (Lot 3, DP 594679 and Lot 21 DP 1128492) are complied with. A contamination

assessment completed in 2018 revealed that there are potential unacceptable risks to current site users at this location, and interim management controls were recommended.

We note that there is a current development application under consideration to reuse the northern wool combing ponds (Lots 2 and 4, DP1249028) for use as landfill for non-putrescible waste. With the correct construction, licensing and controls, this may be an appropriate way to remediate this site, and allow future reuse of the land.

Given its use for town and domestic water supply, particular focus should be given to protection of groundwater resources across the SAP. This assessment supports the WSP Hydrological assessment, which earmarks groundwater protection zones as part of the Master Plan process. Activities which have the potential to contaminate groundwater should be considered unsuitable in the groundwater protection areas – more details are provided in the WSP Hydrogeological Assessment. By overlaying the proposed protection zones with the AEIs identified in the current investigation (Figure 4), it is noted that the AEIs to the east of Byrnes Road are in close proximity to the proposed zones, and the importance of further investigation, as recommended above, is reinforced.

Due to the identified number of AEIs it is recommended that any beneficial use (abstraction of groundwater) with hydrogeological connectivity to the SAP should be subject to an agreed monitoring programme that demonstrates that the aquifer is not impacted by contamination.

For development of the Master Plan, consideration should be given to a smaller number of industrial land use areas, centred on existing industrial zones, for more efficient and effective monitoring of impacts on sensitive receptors.

For former agricultural land, potential contamination impacts during future developments can be managed during construction through an unexpected finds protocol within a construction environmental management plans (CEMP) as part of development standards

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6 **REPORT LIMITATIONS**

SCOPE OF SERVICES

This environmental site assessment report (the report) has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the client and WSP (scope of services). In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

RELIANCE ON DATA

In preparing the report, WSP has relied upon data, surveys, analyses, designs, plans and other information provided by the client and other individuals and organisations, most of which are referred to in the report (the data). Except as otherwise stated in the report, WSP has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report (conclusions) are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. WSP will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to WSP

ENVIRONMENTAL CONCLUSIONS

In accordance with the scope of services, WSP has relied upon the data and has conducted environmental field monitoring and/or testing in the preparation of the report. The nature and extent of monitoring and/or testing conducted is described in the report.

On all sites, varying degrees of non-uniformity of the vertical and horizontal soil or groundwater conditions are encountered. Hence no monitoring, common testing or sampling technique can eliminate the possibility that monitoring or testing results/samples are not totally representative of soil and/or groundwater conditions encountered. The conclusions are based upon the data and the environmental field monitoring and/or testing and are therefore merely indicative of the environmental condition of the site at the time of preparing the report, including the presence or otherwise of contaminants or emissions.

Also, it should be recognised that site conditions, including the extent and concentration of contaminants, can change with time.

Within the limitations imposed by the scope of services, the monitoring, testing, sampling and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied, is made.

REPORT FOR BENEFIT OF CLIENT

The report has been prepared for the benefit of the client and no other party. WSP assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of WSP or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters.

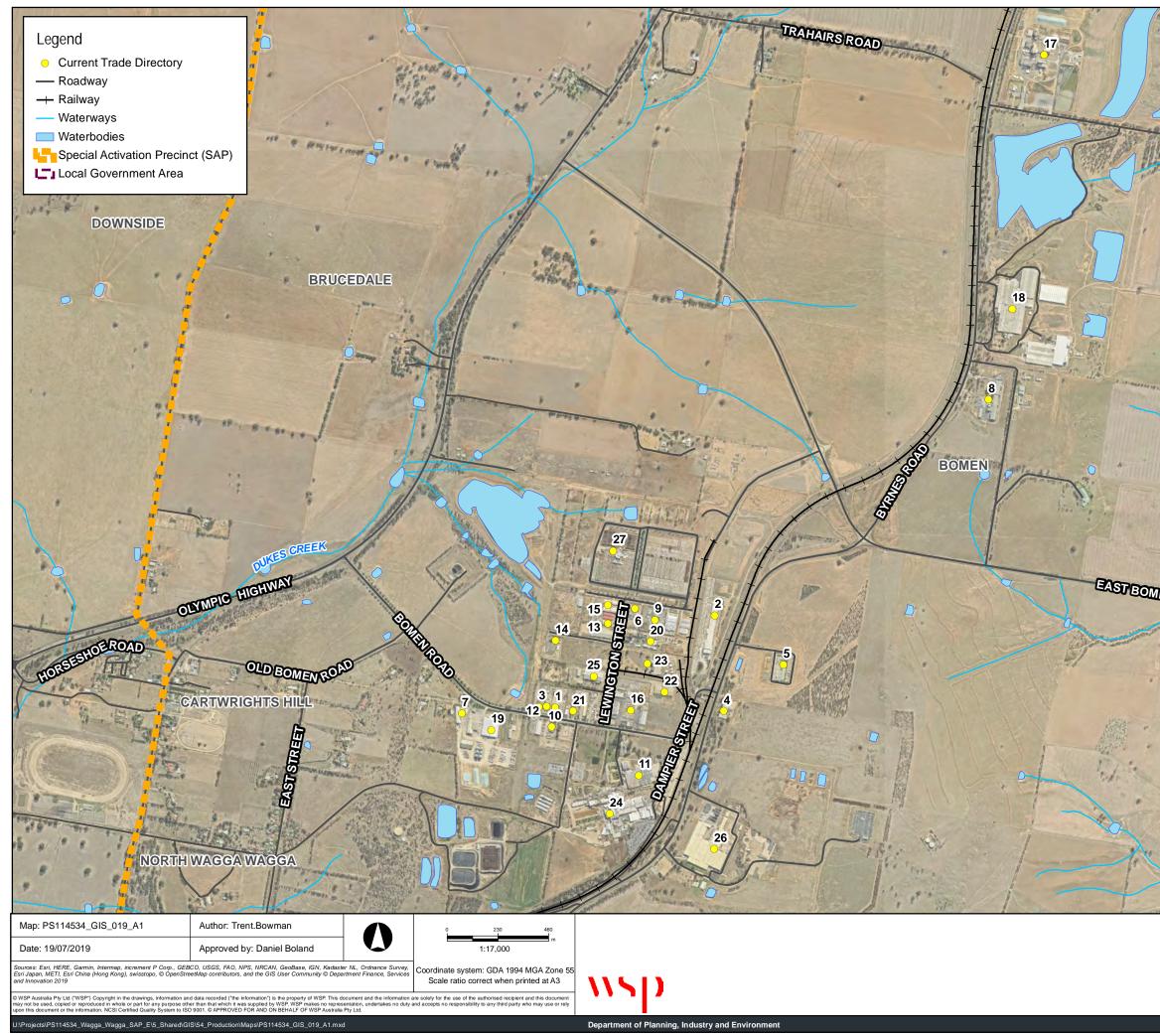
OTHER LIMITATIONS

WSP will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.

The scope of services did not include any assessment of the title to or ownership of the properties, buildings and structures referred to in the report nor the application or interpretation of laws in the jurisdiction in which those properties, buildings and structures are located.

APPENDIX A FIGURES



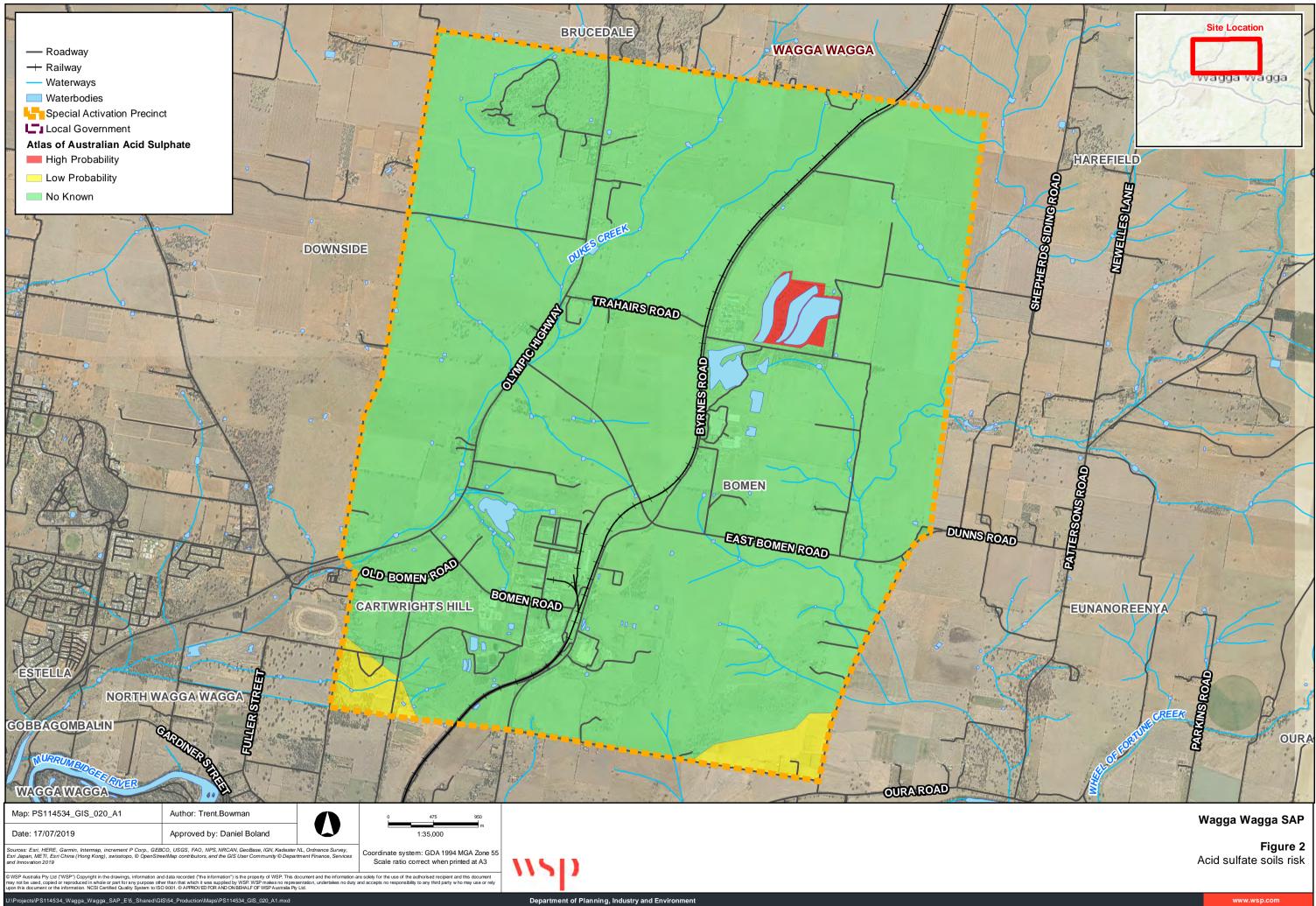


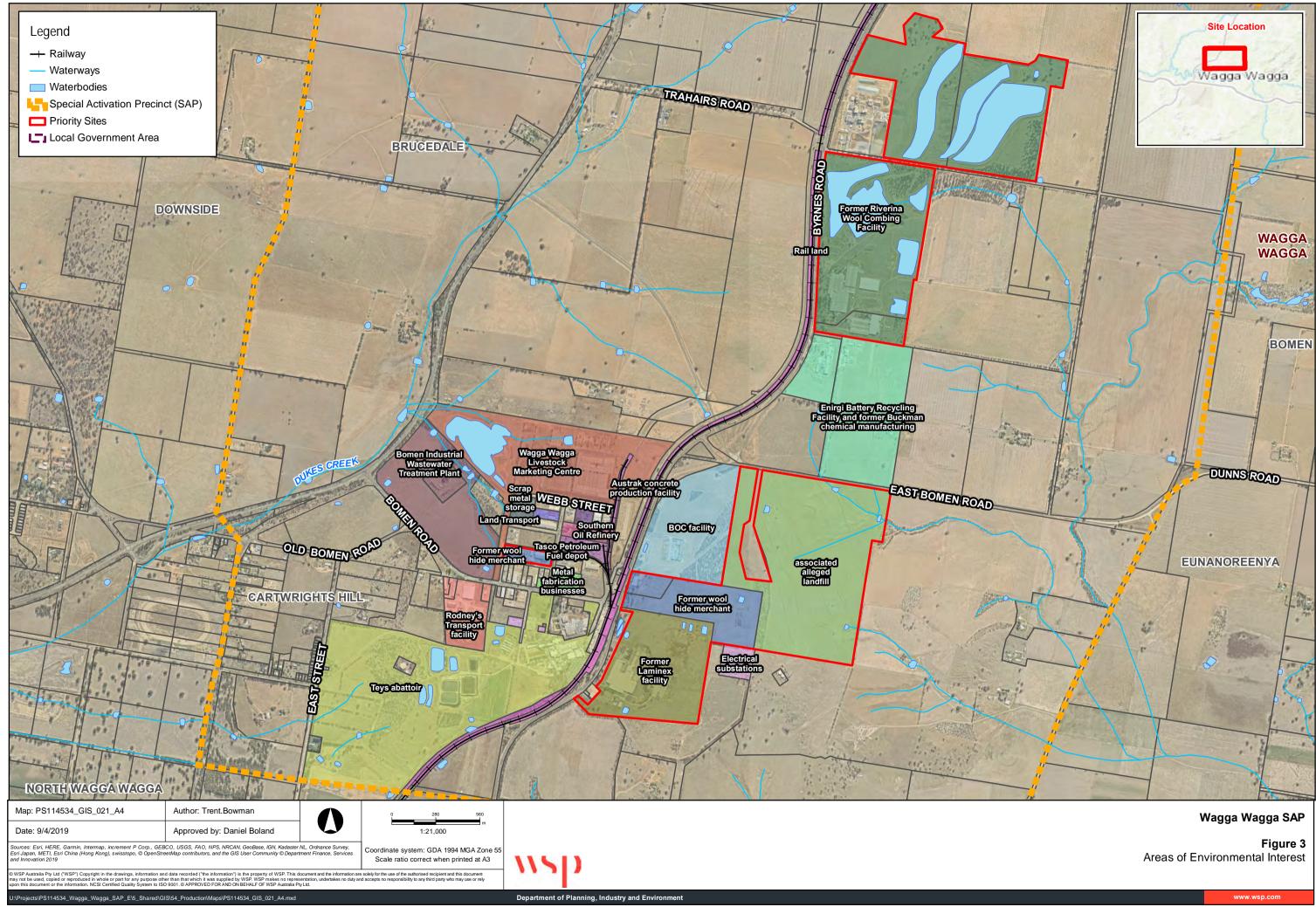
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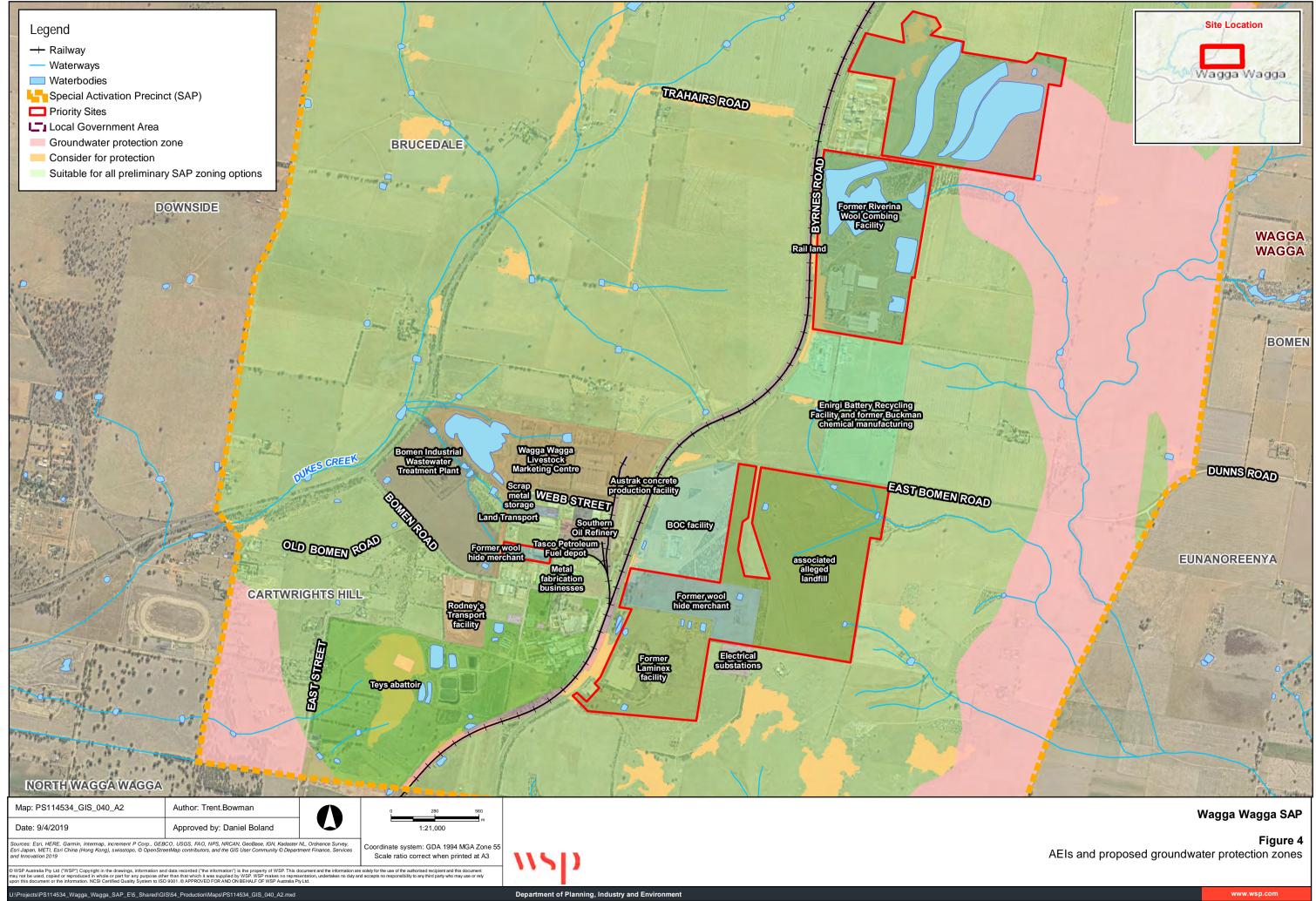
Wagga Wagga SAP

Figure 1

Current businesses







APPENDIX B AERIAL PHOTOS





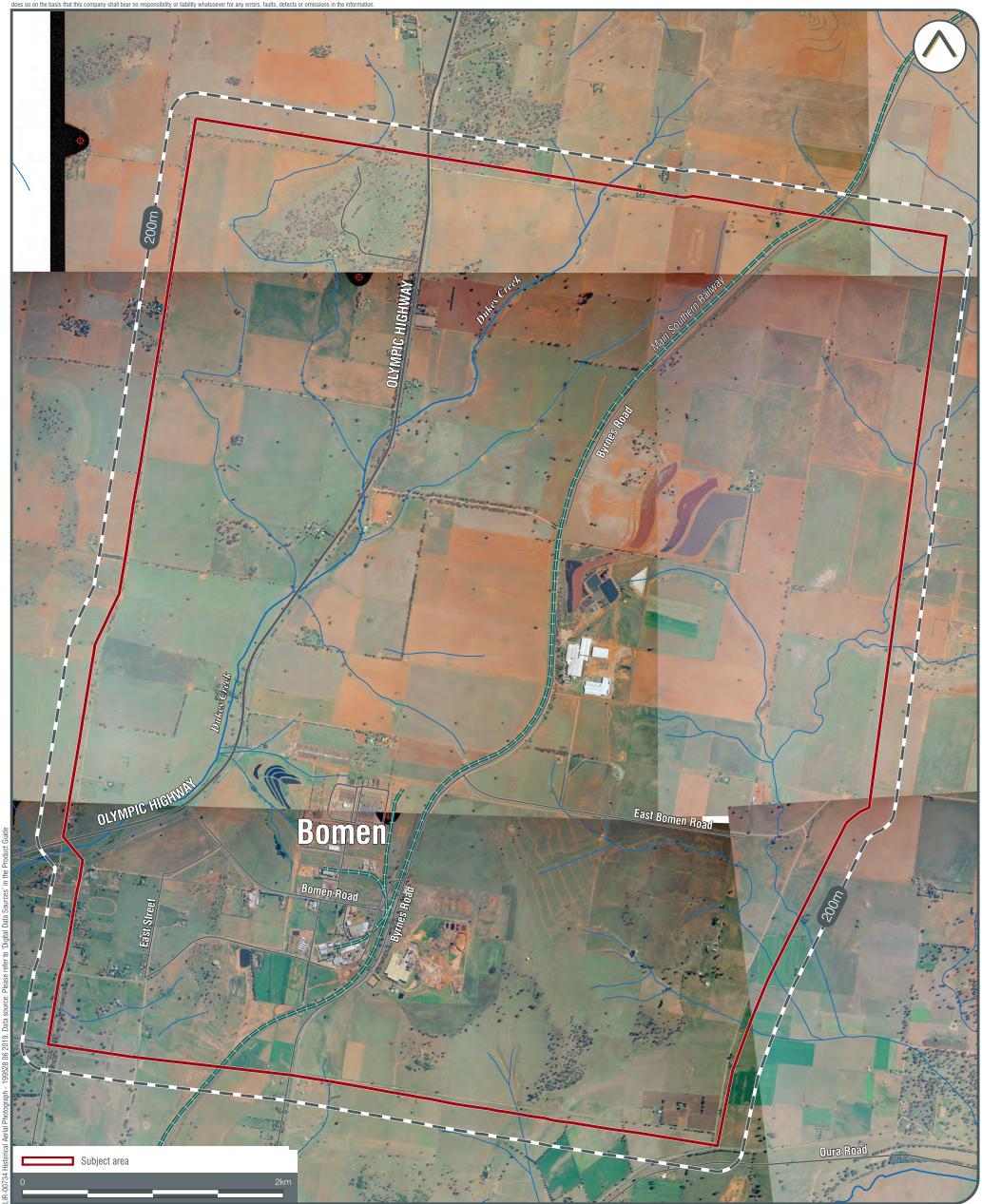






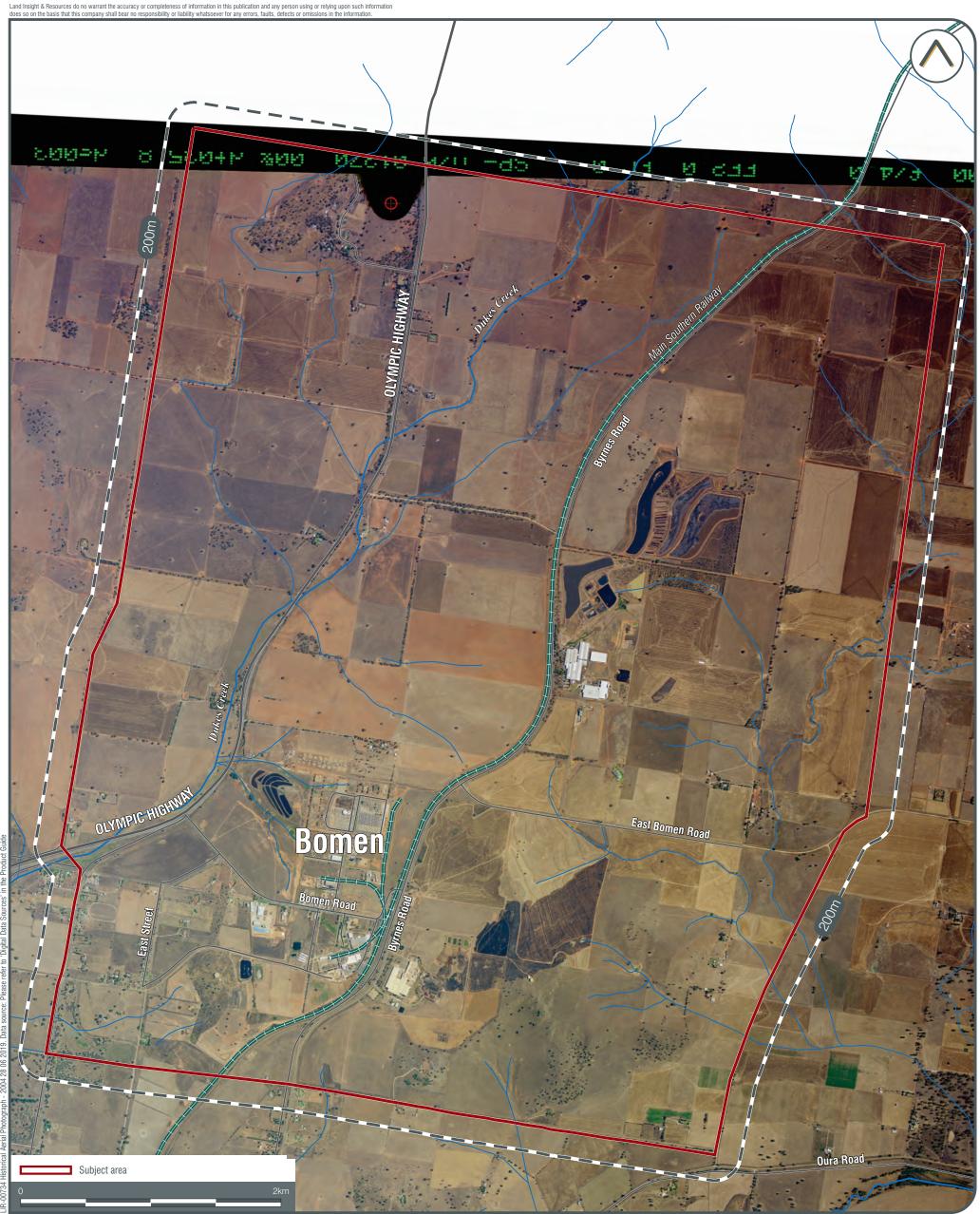


















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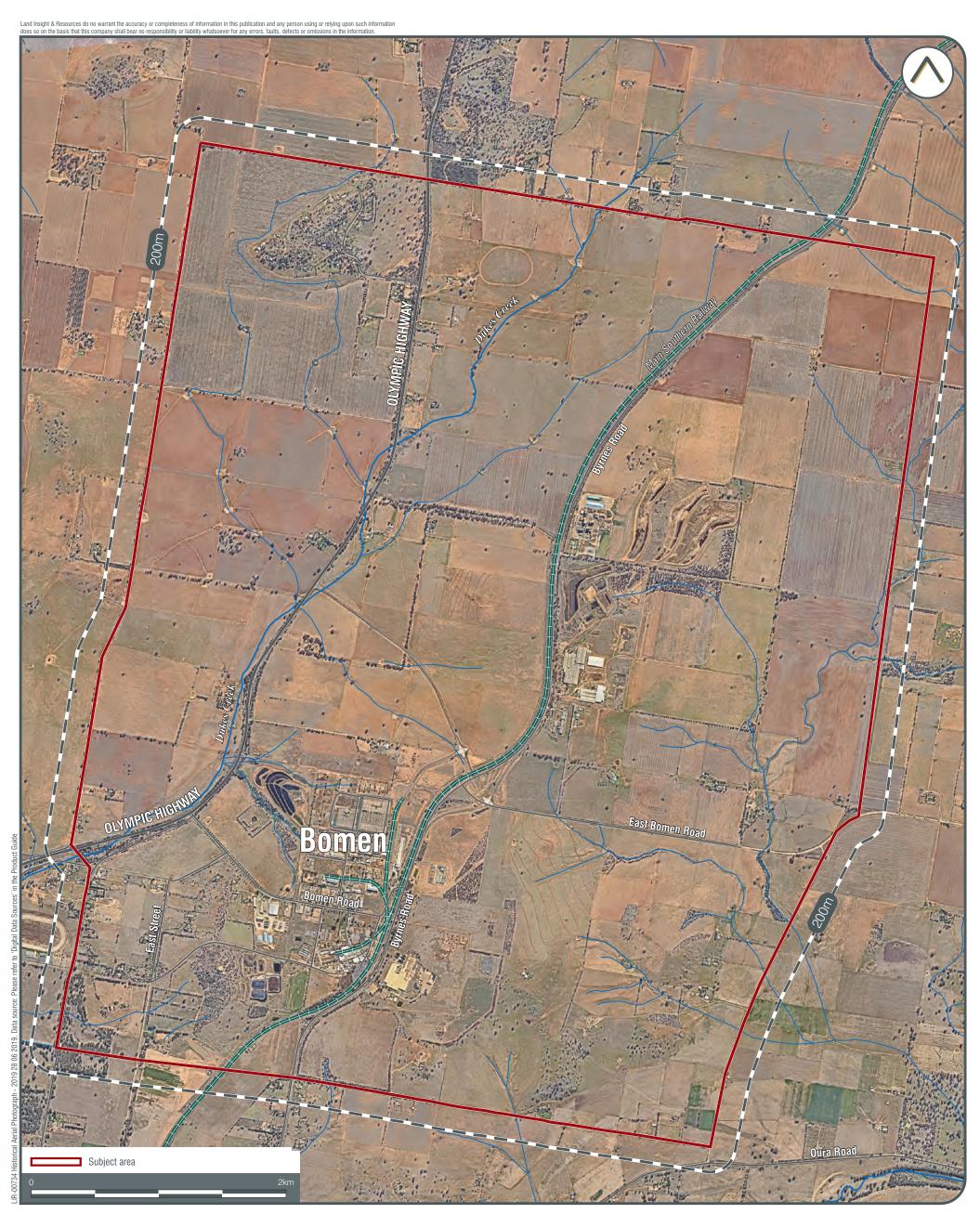
















APPENDIX C BOMEN DEVELOPMENT HISTORY (SUPPLIED FROM COUNCIL)



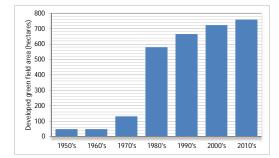
Year (first developed)	Sequence of owner / operator or								100-1			0015	Land area			Employees		
		Development	Address	Lot	DP	1950's	1960's	1970's	1980's	1990's	2000's	2010's	(Ha) 2015	Development cost	Employees	2015	Notes	Contact
1951 1976		Wagga Wagga Abattoir Wagga Wagga Abattoir	1 Dampier St 1 Dampier St			47	47	47							100		WWCC owned, 100 employees initially, 140 in 1960 Expansion in 1976 then closed 1981	-
1985		Charles David Pty Ltd	1 Dampier St					47									Reopened 1985	
1987		Metro Meat Ltd	1 Dampier St						47						430		Changed ownership, 430 employees in 1988	
?	5	Cargill Beef	1 Dampier St							47							Change in ownership, 570 employees in 1998	
?		Teys Australia Southern	1 Dampier St								47				1000	1000	Change in ownership, employment 2014: wage = 800, staff = 200	
2015		Teys Australia Southern	1 Dampier St								4 000	47	47	10.0	0		Expansion - State significant development application pending, total property = 156 Ha but only 47 app	ears to be industrial zone
2005 1975		Bomen Industrial Sewerage Treatment Facility James Barnes Pty Ltd	103 Bomen Rd 14 Bomen Rd					5.642			4.003	4.003	4.003	10.2	0	C	Receivership in 1978	
1975		Gadsden Australia Pty Ltd	14 Bomen Rd					J.042									Receivership in 1978	
1989		Angliss Australia (name change to Southern Country Foods)	14 Bomen Rd						5.642						200		Name change to Southern Country Foods at some point, 200 employees at some point	
1997		H J Heinz Company	14 Bomen Rd							5.642	5.642	5.642	5.642			50		
1975	1	Michaellis Hollander	15 Lewington St					2.647	2.647									
1995		Riverina Hide and Skins	15 Lewington St							2.647								
?	3	Tankmaster	15 Lewington St															
?	4	Countrywide Engineering Fabstock	15 Lewington St 15 Lewington St															
?		Riverina Crane Holdings	15 Lewington St								2.647	2.647	2.647				Originally set up as fellmongery	
2012		ROBE	177 Trahairs Rd								2.047	2.047	2.047	125	65	65		
2003		Proway Livestock Equipment	19 Bomen Rd								2.25	2.25	2.25	0.62	55			
1996		Access Recycling	20 Hereford St							2.618	2.618	2.618	2.618	0.2	8	8	3	
2012		Essential Energy	20 Jersey St									0.5642	0.5642		0	C	Major substation	
2007		Dickinson Trailers	20 Lewington St									1.201	1.201		40	40		
1981		Bomen Hotspot Takeaway	21 Bornen Rd						0.2215	0.2215	0.2215	0.2215	0.2215	¢EM.	10	3		
1993 1997		Buckman Laboratories Pty Ltd Buckman Laboratories Pty Ltd	212 East Bomen Rd 212 East Bomen Rd							40	40			\$5M \$12M	15		Administration & technical centre Manufacturing	-
2014		Orbitas	212 East Bornen Rd								40	40		\$1211	0	16	Change in ownership. 16 employees (31.3.15)	
2015		Renewed Metal Technology	212 East Bomen Rd										40				State significant development application pending	
2014		Southern Steel	22 Lewington St									4.582	4.582	0.8	7	7		
1985		Steel Supplies	23 Bomen Rd						0.6663	0.6663	0.6663	0.6663	0.6663			3	3 employees (31.3.15)	
1985		Sita	25 Bomen Rd						0.6677	0.6677	0.6677	0.6677	0.6677			24	24 employees (31.3.15)	
2007		Origin Energy	25 Lewington St							0.4450	3.374	3.374	3.374	1	4	4		Cliff Richie 6923 94
1996 1982		South West Trailers Laminex	27 Bomen Rd 280 Byrnes Rd						41.9	0.4453	0.4453	0.4453	0.4453	0.02	4 225		225 employees in 1984	-
?		Rivco (Laminex site)	280 Byrnes Rd						41.7	41.9	41.9				223		225 employees in 1964	
2013		PJR Investments (Wagga) Pty Ltd (Laminex site)	280 Byrnes Rd							1117	,	41.9	41.9			25	Buckman 12 employees, 11 Vinidex (1.4.15)	
1995		Riverina Engineering	29 Bomen Rd							0.404	0.404	0.404	0.404		1	1		
1996		Fulton Hogan	30 Webb St							1.322	1.322	1.322	1.322	2.5	2	2		
2003		AGnVET Services	31-33 Bomen Rd								0.8078	0.8078	0.8078	0.4			2	
2007		Great Southern Electrical	32 Bomen Rd						0.1/4	0.1/4	0.4004	0.4004	0.4004	0.22	28	28		_
1986 2007		Caltex Tasco Western Wool Marketing	34 Lewington St 34-36 Bomen Rd						3.164	3.164	3.164 0.4005	3.164	3.164 0.4005	0.5	7	/	1	
2007		Ladex Construction Group	35 Bomen Rd								0.4005	0.4003	0.4003	0.15	40	40		
1991		Granvale Pty Ltd	352 Byrnes Rd							24		0.1007	0.1007	0.10	10	10		
?		G H Michell and Sons Pty Ltd	352 Byrnes Rd								24							
?		Bidgeebong Wines Australia	352 Byrnes Rd									24				4		
2007		BOC Limited	354 Byrnes Rd								38.5	38.5	38.5	4.7		4	4 employees (31.3.15)	Murray Thomas 69
2000		Freight Corp	36 Dampier St								1.361	4.0/4	1.0/1					_
2002 1992		PN (Patrick Port Logistics) Southern Oil Refining Pty Ltd	36 Dampier St 36-42 Lewington St							2.68	2.68	1.361 2.68	1.361 2.68			20	Ownership change 30 employees (31.3.15)	
1985		Rambler Welding Industries	39 Lewington St						1.005	2.00	2.00	2.00	2.00			30	so employees (31.3. 15)	
?		BMB	39 Lewington St						1.005	1.005	1.005	1.005	1.005					
1995	1	Bomen Agriculture Machinery	40 Bomen Rd							0.6158	0.6158	0.6158						
?	2	Jarricks Haulage & Superior Truck Servicing	40 Bomen Rd										0.6158	0.3	4	4	4 employees both businesses (31.3.15)	
2006		Land Storage & Distribution	45 Lewington St								1.006	1.006	1.006	0.13	9	9		
2008		Rod Powell Builder	50 Webb St								0.645	0.645	0.445	0.40	10	10		_
? 2010		Vetafarm Renewed Metal Technology	50 Webb St 509 Byrnes Rd									10	0.645	0.43				-
2010		Renewed Metal Technology Renewed Metal Technology	509 Byrnes Rd									10	10	55	00	50	State significant development application pending	
1988		Chep Equipment Pooling Services	52 Lewington St						0.796	0.796	0.796	0.796	0.796			5	иние наукности исторители аррисалот ретили	
1996		Bomen Produce Company	52 Webb St							0.6443	0.6443			0.12	0		Soon to be occupied by Vetafarm	
2015		Vetafarm	52 Webb St									0.6443	0.6443				As above	
2003		Nufarm	53 Lewington St								0.9887	0.9887	0.9887	0.45	6	6	6 employees (31.3.15)	
1979		LMC	53 Webb St					75.34	75.34	75.34	75.34	75.34	75.34		133	133	133 FTE direct - Economic Impact Assessment (AEC 2009)	
1980 1988		Prouvost	560 Byrnes Rd	+ +					400.686	400.686								_
1988	2	Chargeurs Chargeurs	560 Byrnes Rd 560 Byrnes Rd	+						400.686					200		200+ employees when expanded	1
?	÷	Rivco (Woolcombing site)	560 Byrnes Rd		-						400.686			L	200		zoor ongooyood which oppingou	
2015		Riverina Sustainability Centre Pty Ltd	560 Byrnes Rd									400.686	400.686			35	35 employees across 5 tenancies	1
		Austrak	57 Dampier St								5.858	5.858	5.858	11.2		30	Plant currently (Mar 2015) mothballed pending new contract	Adam Clifton 0407
2006				1						10.70	40.70	10.70	10.70		450	150		
2006 1992 1992		Rodneys Transport Services Delta Agribusiness	80-82 Bomen Rd 84 Bomen Rd							10.79	10.79	10.79	10.79 0.388		150		web site 4.5 + 8.5 employees 31.3.15	

Developed green field area (hectares)

 47
 47
 130.629
 579.7355
 663.2549
 722.8493
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 59.5944
 33.7509

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