26 November 2018

Mr Kelly McNicol
Team Leader, Industry Assessments
Department of Planning and Environment (DP&E)
GPO Box 39
Sydney NSW 2001

Our ref: 2316484
Your ref:

Dear Kelly

Enirgi Power Storage Recycling (EPSR) Consolidation Project EIS (SSD 6619), Response to Submissions Report
Additional response to DP&E enquiries

I refer to your email dated 21 November 2018, regarding the Response to Submissions Report for the EPSR Consolidation Project EIS. Please find our response to DP&E issues raised below.

DP&E question 01

What consent does the administration building operate under and can the development operate without the administration component?

Response 01

Corporate administrative functions for EPSR are located on Lot 3 DP 594679, in the building off East Bomen Road. The building is located in the eastern portion of the site and was approved as part of the original Buckman's laboratory development in the 1990's.

The administration building serves corporate management functions such as finance and human resources and is not directly associated with the operation of the recycling operations. The administration building effectively functions as a corporate head office and could realistically be located at any location around Australia to serve that purpose. Co-location at Bomen provides opportunities for management oversite of the operations and to utilise meeting facilities for site visitors separated from the industrial operations.

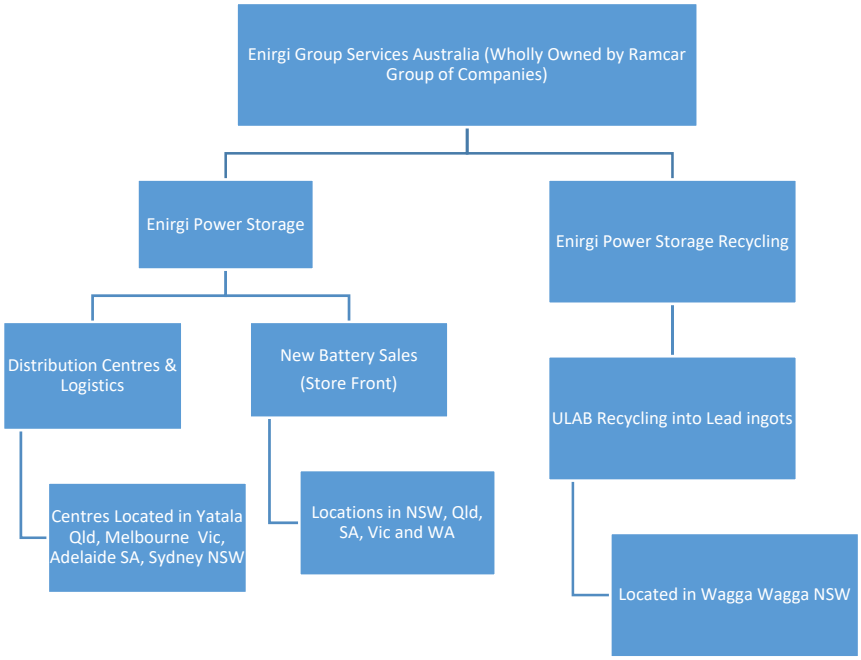
Operational management of the site is maintained in the site office adjacent to the car-park within the ULAB facility.

DP&E question 02

Provide more details about the Enirgi Group, their operations and where they are located.

Response 02

An overview of Enirgi Group and their locations and operations was provided in section 3.1.1 of the Response to Submissions Report. Enirgi Group now operate as part of the Ramcar Group of Companies.



DP&E question 03

How much plastic is being processed currently, is any increase in capacity proposed? The existing consent indicates that the facility is only allowed to process 5,000 tonnes per year, please clarify

Note, the RTS states that the plastics recycling facility will only process 6,000 tonnes per annum (half of what was prosed in the EIS). The existing consent allows 5,000. Please demonstrate the plastics facility has the capacity for the increase.

Response 03

The polypropylene plastic (PP) casing of a battery is nominally 5%, by weight. So, for 120,000 tonnes per year of ULAB recycling the maximum PP to process would be 6,000 tonnes per year.

The 12,000 tonnes mentioned in the EIS (Vol 1, section 4.3) refers to the process limit placed on the existing facility under the existing development consent (Schedule 1, 34 of the *Protection of the Environment Operations Act, 1997* (PoEO Act). Resource recovery, recovery of general waste outside the regulated area).

Repeta Pty Ltd operate the Plastics Resource Recovery Facility (PRRF), and have installed a machine that can process 3 tonne per hour. There are no changes proposed to this facility. Operating at 8 hours

per day, Monday to Saturday, at 85% efficiency, the facility has an annualised capacity of 6,375 tonnes. Please find attached (Attachment 1) a letter from Repeta Pty Ltd confirming this information.

DP&E question 04

Plans
Please provide:

- **updated annotated plans including a plan of the existing site. Please ensure that the plan of the development includes all components of the proposal (including the informal car park, administration building and stormwater detention basin) and that all plans are legible when zoomed in**

  Please annotate and include the plastics facility on the general site plan of the proposed development

  Provide detailed plans of the plastics facility

- **plans of the new internal roads**
  Provide plans of the new internal roads

- **an annotated engineering drawing of the plastics recycling facility including all components**
  Please provide

- **annotations on relevant plans to show the process flow.**
  Please provide the plan as requested above.

Response 04

Figure 4-3 in the EIS clearly shows an annotated plan of the PRRF, and Figure 3-4 of the Response to Submissions is an annotated drawing of the key features and proposed new infrastructure of the ULAB facility. This information was presented in two separate figures to allow sufficient detail and visibility.

A new figure showing the information on one single site plan figure has now also been provided as Attachment 2.

Ground Floor Plans of the PRRF have been provided in Appendix D of the EIS. These plans are the same plans that formed part of the Development Consent (DA16/0386) for the PRRF and are all that are currently available. There are no changes proposed to the PRRF, however annotated engineering drawings are now being prepared and will be forwarded within the next week.

As mentioned in section 3.1.2 of the Response to Submissions, concept level design of the new internal roads has been provided in Appendix C of the Response to Submissions Report. This is considered sufficient detail to define the potential environmental impacts associated with the development and is commensurate with the requirements of the Environmental Planning and Assessment Regulation 2000, and typical of the level of detail that is provided in other SSD applications.

Detailed description of the process flow was provided in Chapter 4 of the EIS and further in the Response to Submissions Report. Additional process flow drawings have been provided as Attachment 3.

DP&E question 05

The incoming waste volume does not match the processing capacity. How many day's worth of batteries can be stored? What would happen in the case of a plant shutdown noting that to process 120,000 tonnes per year the facility has to operate 24/7 365 days a year, there are no contingencies for plant break which is particularly important given incoming battery tonnage is predicted to be greater than the daily processing capacity.

This comment has not been addressed, the predicted incoming waste tonnage is described as being 450 tonnes per day, yet the proposed development's processing capacity is 330 tonnes per day. Whereas the RTS states that processing capacity is not less than incoming waste which is contradicted by the EIS. Please clarify.

Response 05

The predicted incoming waste of 450 tonnes per day relates to the predicted maximum daily amount received, in order to determine the daily traffic movements. With the proposed warehouse facility the daily amount of incoming waste is not expected to match the actual daily processing rate. ULABs storage amounts will fluctuate based on processing rates and incoming waste amounts.

The 330 tonnes per day processing capacity is the annualised amount converted into a daily number, not the maximum daily throughput capacity of the plant.

The proposed battery breaking equipment will have a maximum throughput rate of 20 tonnes per hour. At 100% utilisation this would result in a maximum daily capacity of 480 tonnes (20 tonnes per hour x 24 hours) or an annualised rate of 175,200 tonnes (20 tonnes per hour x 24 hours x 365 days). Thus an online time of 68% is required to meet the proposed annual limit, which is well below typical operating efficiency of 85% for the breaker. Hence, the proposed capacity is achievable.

The two furnaces have a combined capacity of 140,000 tonnes per year (ULAB equivalent) at 100% utilisation. To consume 120,000 tonnes per year, the furnaces would need to operate at 85% utilisation. Furnace operation typically achieves 95% online time. Hence, proposed capacity can be achieved.

The comment stating "the plant has been designed to process 120,000 tonnes per year and the annual incoming waste volume would not exceed this amount" is to reflect that the plant will operate to consume a maximum of 120,000 tonnes per year ULAB, as opposed to operating to a tonnes per hour/uptime efficiency, which in theory could exceed 120,000 tonnes per year.

DP&E question 06

Provide a description of water management for the plastics recycling facility and the administration building, including an assessment demonstrating the existing system is sufficient.

It is noted that water from the plastics facility will be returned to the desulphurisation process. Please describe how water used in the plastics facility is returned to the desulphurisation process

Response 06

The liquid waste from the PRRF is returned to the desulphurisation process using 2,000 litre transportable tanks (see attached brochure in Attachment 4).

These tanks are specifically designed for transporting liquids.

The tank is filled with liquor inside the plastics processing plant. EPSR personnel collect the tank using a fork lift truck. The tank is transported via internal road back to the desulphurisation process. The liquor is treated with other process liquors through the desulphurisation tanks and purification process and ultimately reports to the crystalliser to produce sodium sulphate salt.

DP&E question 07

Contamination
Identify additional measures that will ensure the development will manage and mitigate future contamination.

The RTS doesn't contain any additional measures to manage potential contamination except for additional monitoring, although it explains that the facility is designed to ensure adequate movement of vehicles. As the RTS does not explain where the contamination may have come from, this aspect doesn't make sense.

Response 07

Lead contamination has been identified in the area east of the existing facility immediately adjacent to an existing internal access road. The contamination is likely to be associated with vehicles tracking off the sealed access road prior to exiting the site through the wheel wash, which has occurred as a result of limited passing provisions within the existing road design.

As mentioned in section 3.1.6 of the Response to Submissions Report, further delineation of the extent of lead impact soils has commenced and a Remedial Action Plan (RAP) will be prepared to manage the full extent of contamination identified through the ongoing investigations. It is considered that the site can be made suitable for ongoing industrial use as part of the redevelopment process.

The expanded facility has been designed to ensure adequate movement of vehicles through the site during all loading operations. This will prevent vehicles within operational areas tracking off the sealed surface prior to passing through the wheel wash and exiting the site.

To provide an indication of any emerging contamination issues, it is intended to amend biannual soil monitoring to six monthly monitoring in the first two years post expansion, reducing to annual sampling in the following three years. It is anticipated that biannual sampling may be resumed after this period, pending performance. A review of the facilities Operational Environmental Management Plan would also be undertaken as part of the proposed development.

We trust this answers the last of DP&E's queries, however should you wish to discuss, please don't hesitate to contact me on Brooke.Neville@ghd.com or (02) 6923 7414.

Sincerely
GHD

Brooke Neville
Senior Environmental Scientist
+61 2 6923 7414

Attachment 1

Enirgi Power Storage Recycling
212 East Bomen Road
Bomen NSW 2650

Friday, 23 November 2018

Dear Darren,

As requested, I confirm that the installed equipment at our Bomen Plastics Plant is a 3.0 tonne per hour machine.

Operating for 8hrs per day, Monday to Saturday, we can process approximately 7,500 tonnes per year. Taking into account breakdowns etc., the machine has a typical online efficiency of 85%.

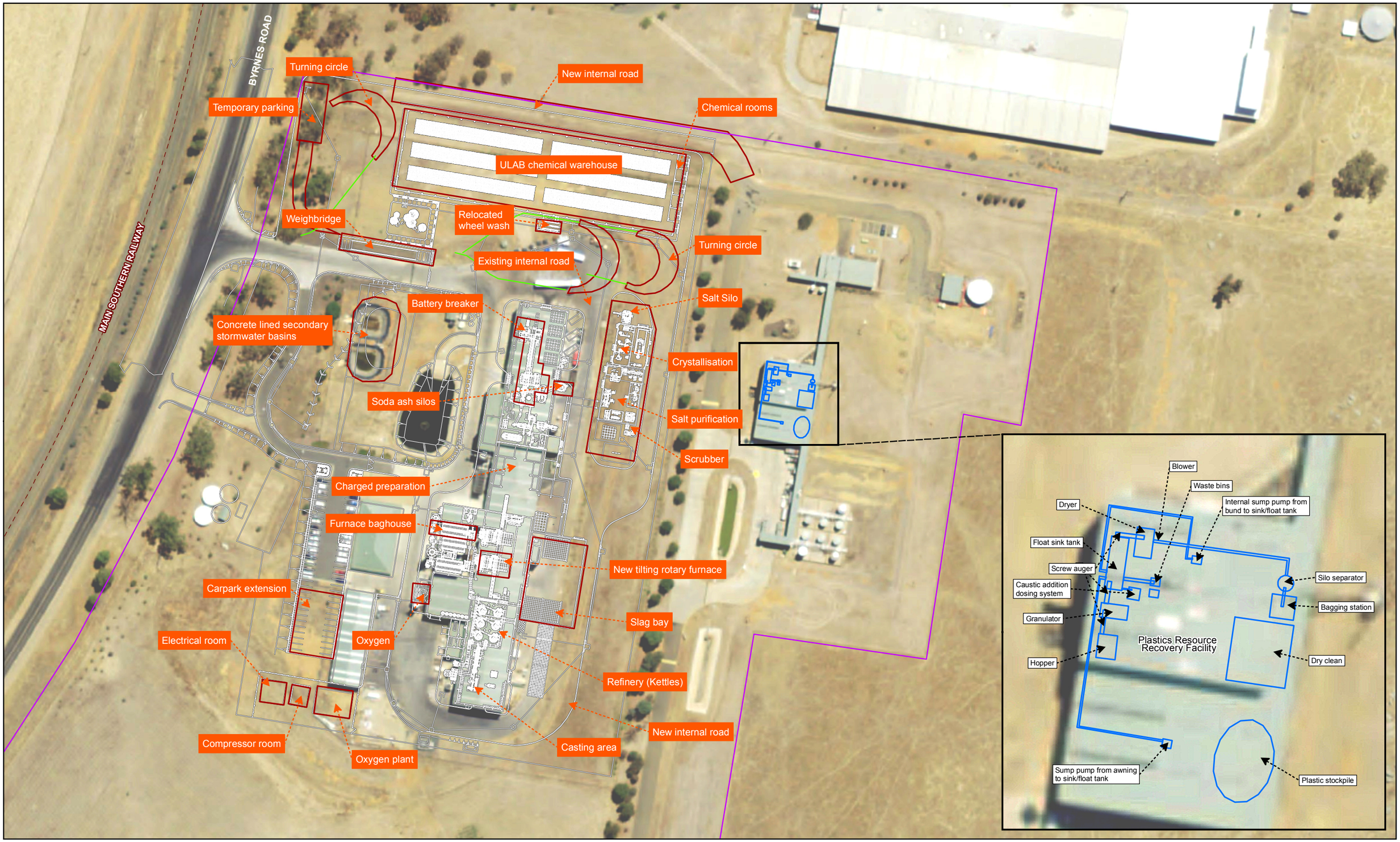
Hence, the processing capacity, without any overtime shifts, equates to 6,375 tonne.

Therefore, we at Repeta can process your proposed input of 6,000 tonnes per year of plastic.

Sincerely,

Petar Dimic
Operations Manager, Repeta Pty Ltd

Attachment 2



Paper Size A3

0 5 10 20 30 40

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Railway
- Turning Circles
- Project boundary
- New infrastructure
- Detailed Design

Enirgi Power Storage Recycling
Consolidation Project EIS
Response to Submissions

Job Number	23-16484
Revision	A
Date	23 Nov 2018

Key features of ULAB and PRR Facilities, including key new infrastructure

Figure 1

N:\AU\Wagga Wagga\Projects\23\15946\GIS\Maps\Deliverables\23_16484_Z012_KeyFeaturesOfULABandPRRFacilities.mxd

Data source: NSW Government (LPI): aerial image - 2015; Enirgi: New area - 2018. Created by:kqvelasco

Level 15, 133 Castlereagh Street Sydney NSW 2000 T 61 2 9239 7100 F 61 2 9239 7199 E sydmail@ghd.com.au W www.ghd.com.au

Attachment 3

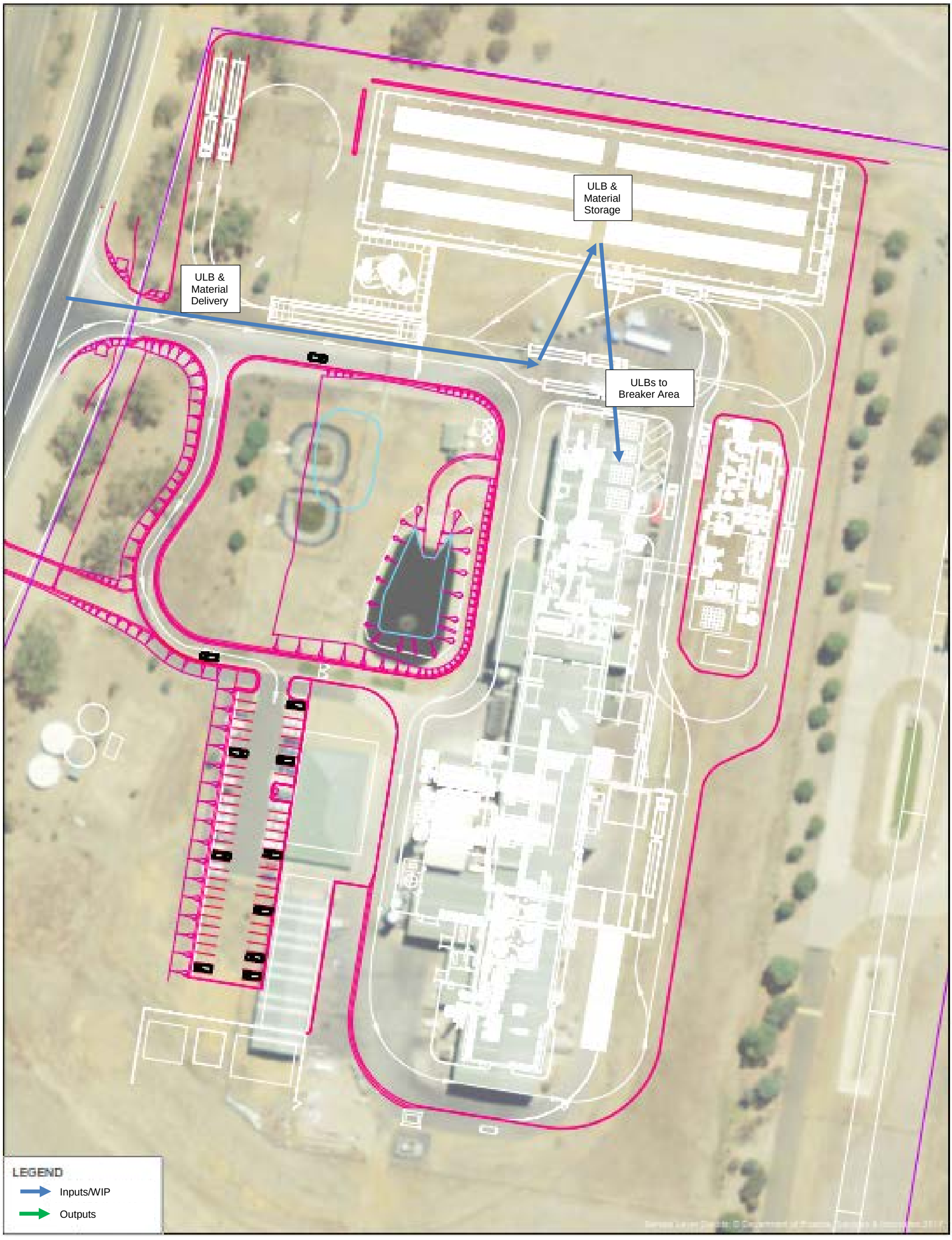
212 East Bomen Road
Bomen NSW 2650
T: 02 6937 1900

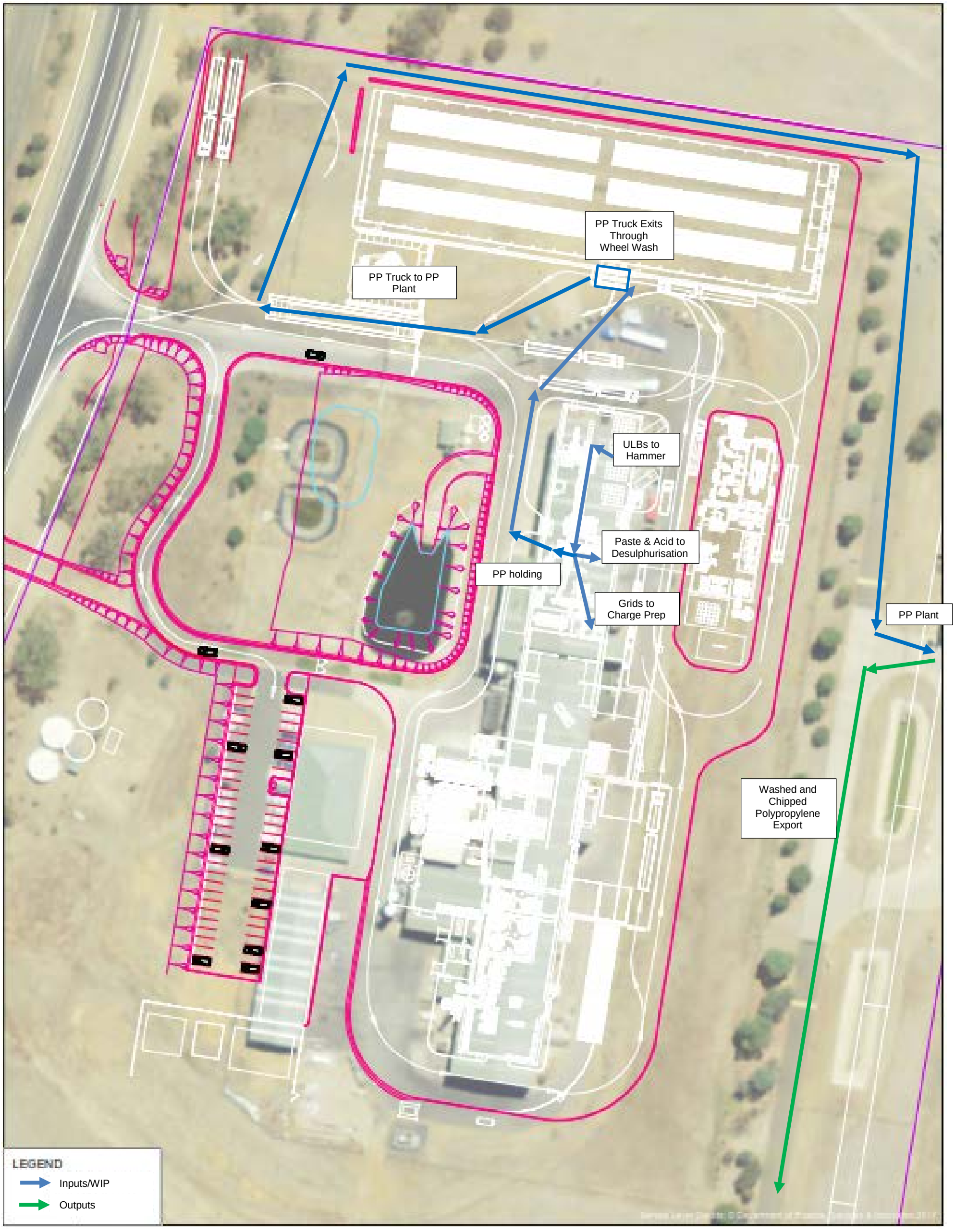
Postage Address:
PO Box 6266
WAGGA WAGGA NSW 2650
ABN 50 114 135 821

DP&E

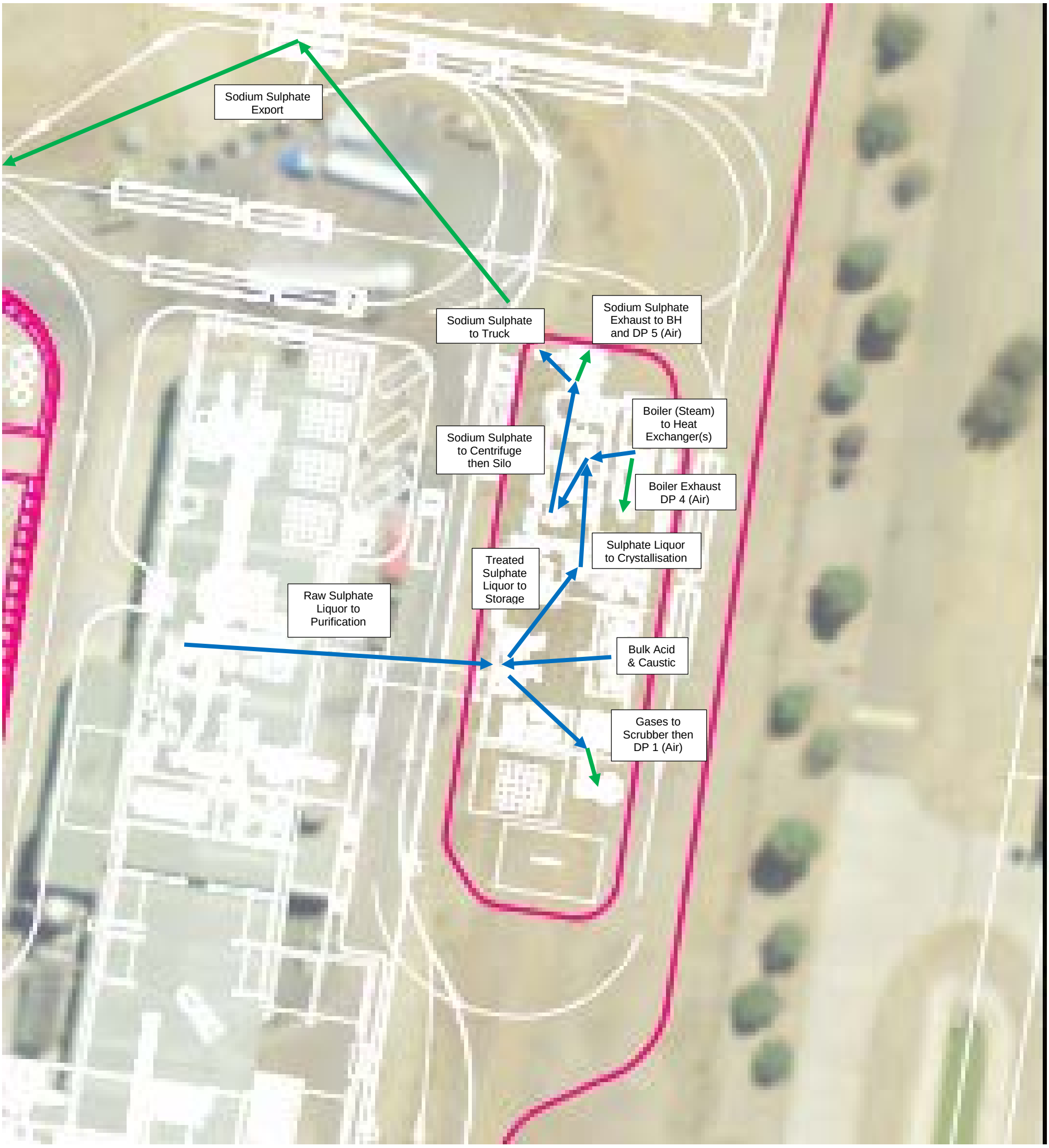
Plans

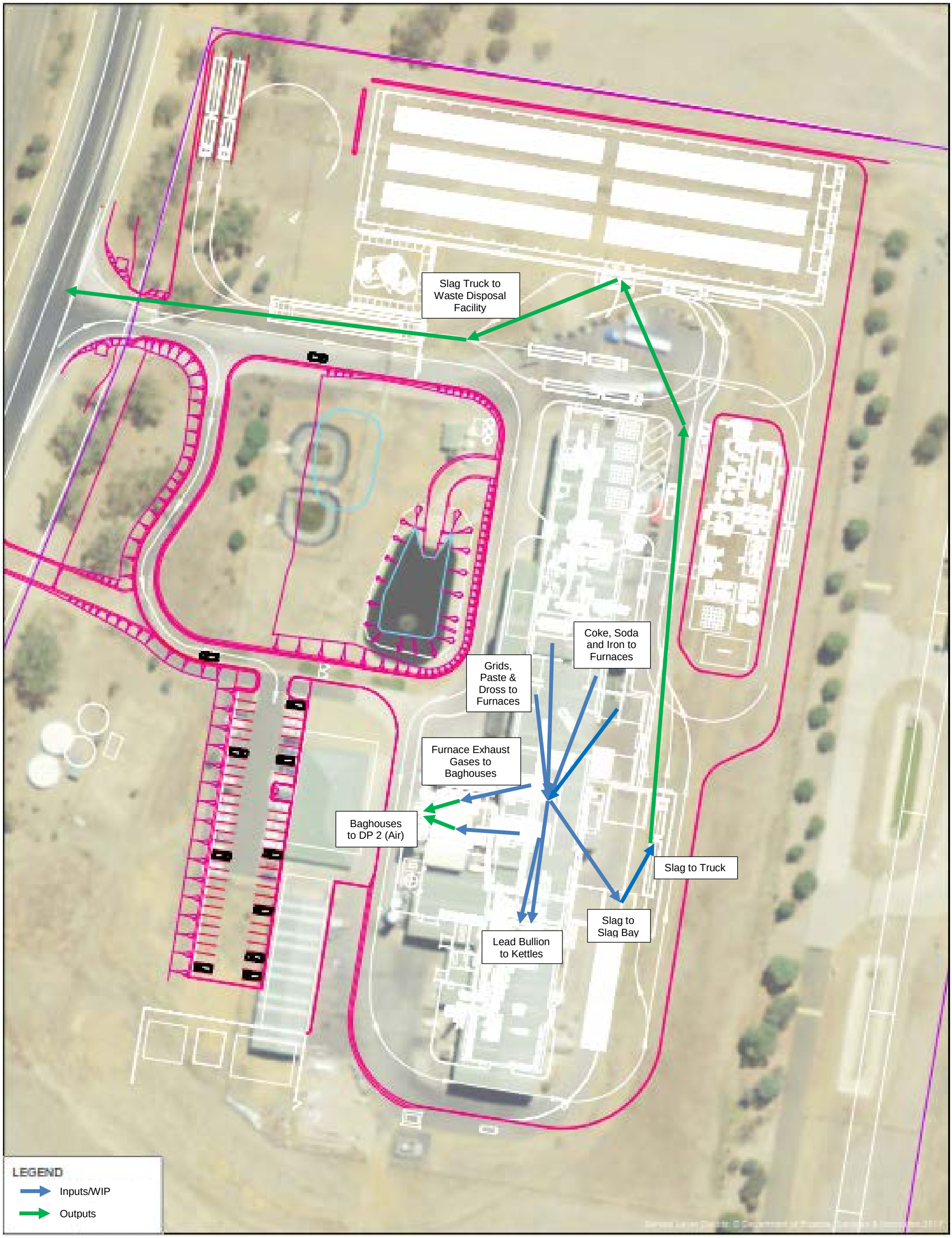
12(i). Annotations on relevant plans to show the process flow

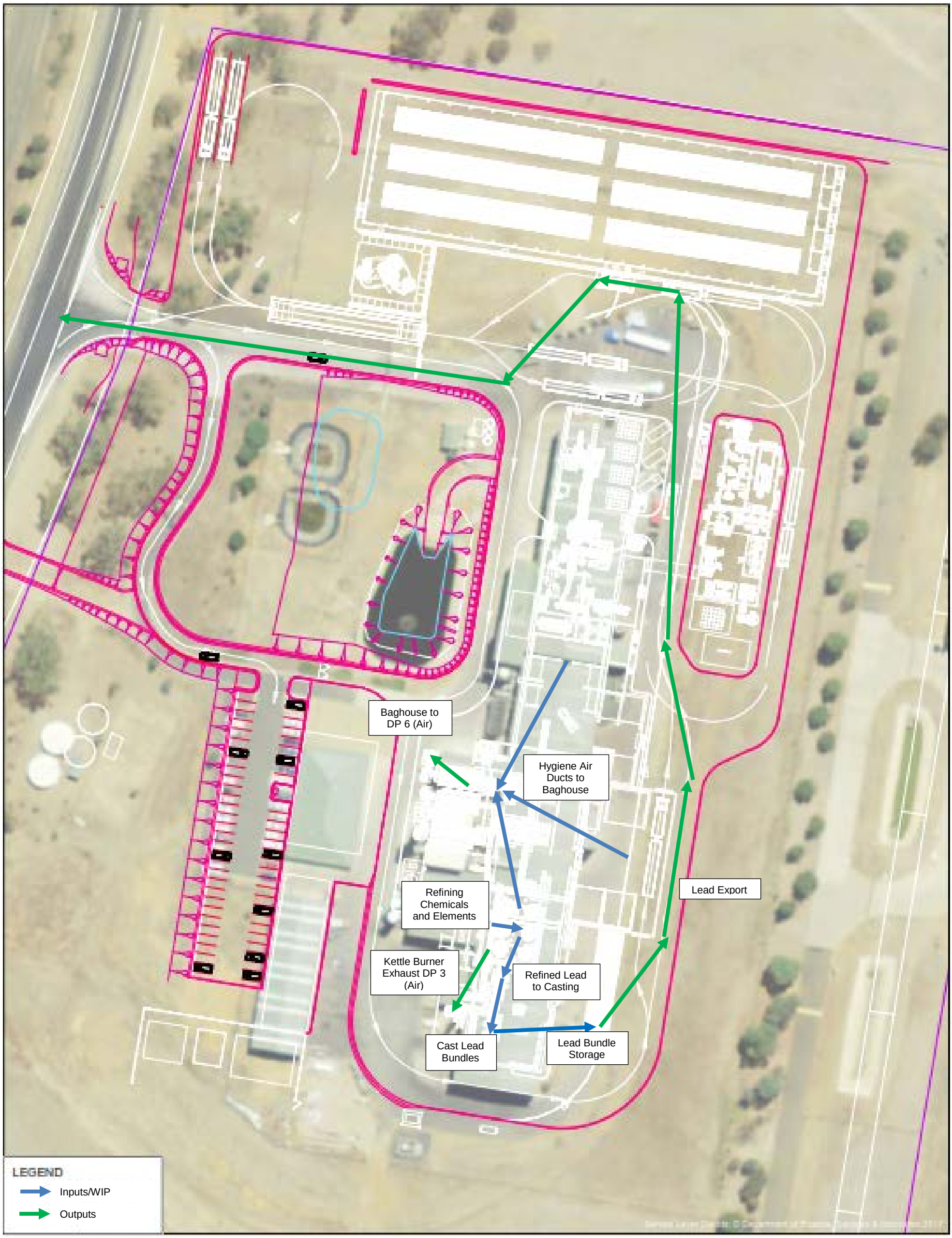



PP Truck Exits Through Wheel Wash
PP Truck to PP Plant
ULBs to Hammer
Paste & Acid to Desulphurisation
PP holding
Grids to Charge Prep
PP Plant
Washed and Chipped Polypropylene Export
LEGEND
Inputs/WIP
Outputs


Soda Ash to Desulphurisation
Raw Sulphate Liquor to Storage
De-S Paste Slurry to Filtration
De-S Paste to Charge Prep


Sodium Sulphate Export
Sodium Sulphate to Truck
Sodium Sulphate Exhaust to BH and DP 5 (Air)
Boiler (Steam) to Heat Exchanger(s)
Sodium Sulphate to Centrifuge then Silo
Boiler Exhaust DP 4 (Air)
Sulphate Liquor to Crystallisation
Treated Sulphate Liquor to Storage
Raw Sulphate Liquor to Purification
Bulk Acid & Caustic
Gases to Scrubber then DP 1 (Air)


Slag Truck to Waste Disposal Facility
Coke, Soda and Iron to Furnaces
Grids, Paste & Dross to Furnaces
Furnace Exhaust Gases to Baghouses
Baghouses to DP 2 (Air)
Slag to Truck
Slag to Slag Bay
Lead Bullion to Kettles
LEGEND
Inputs/WIP
Outputs


Baghouse to DP 6 (Air)
Hygiene Air Ducts to Baghouse
Refining Chemicals and Elements
Lead Export
Kettle Burner Exhaust DP 3 (Air)
Refined Lead to Casting
Cast Lead Bundles
Lead Bundle Storage
LEGEND
Inputs/WIP
Outputs

Attachment 4

WATER CARTAGE TANKS

SUITABLE FOR MANY APPLICATIONS, FROM GENERAL WATER CARTING TO TREE WATERING, FIRE-FIGHTING AND CHEMICAL CARTAGE.

- Moulded internal baffles for vehicle stability
- Tough and durable one-piece moulding
- Translucent (to see water level)
- Sits directly on any flat surface
- 1" brass outlet 200L & 400L
- 1½" brass outlet 600L - 3000L
- High strength, lightweight polyethylene construction

^ FTR3000 ^ FTR2000 ^ FTR1200 ^ FTR800 ^ FTR600 ^ FTR400 ^ FTR200

COMPACT STYLE ALSO AVAILABLE FOR 600 & 800L

^ FTR600U ^ FTR800U

CODE	DIMENSIONS	CAP.	PRICE (INC, GST)
FTR200	1050L x 700W x 600H	200L	$528.00
FTR400	1680L x 700W x 600H	400L	$729.00
FTR600	1150L x 1130W x 740H	600L	$1,032.00
FTR600U	1720L x 890W x 755H	600L	$1,032.00
FTR800	1400L x 1200W x 740H	800L	$1,224.00
FTR800U	1750L x 890W x 925H	800L	$1,224.00
FTR1200	1450L x 1200W x 1000H	1200L	$1,403.00
FTR2000	1900L x 1450W x 1100H	2000L	$2,200.00
FTR3000	2100L x 1500W x 1200H	3000L	$2,860.00