Appendix A

Amended Proposal Description

1 AMENDED PROPOSAL DESCRIPTION

This appendix provides an indicative and conceptual description of the amended Proposal. For the purposes of this Appendix, the amended Proposal is referred to as the Proposal. Appendix F of the AASR shows the updated conceptual design, and in the EIS the architectural design for key features of the Proposal are shown in Appendix F, with the visualisations of the indicative final form of the Proposal included in Appendix T.

1.1 Proposal overview

Bingo is proposing to enhance resource recovery outcomes across the Greater Sydney area by optimising their Eastern Creek REP to capitalise on the underutilised state-of-the-art processing facilities (namely MPC2), and plant and equipment within the Eastern Creek REP. The Applicant is therefore proposing to increase the total throughput of the Eastern Creek REP by 950,000 tpa and carry out infrastructure upgrade works across the Proposal Site (the Proposal). An overview of the Proposal is provided in Figure 1-1. The Proposal would be developed in three stages:

- **Stage 1: Initial throughput:** Stage 1 would comprise 500,000 tpa of additional throughput to be received at the Eastern Creek REP to enhance resource recovery outcomes by increasing utilisation of onsite processing capabilities. No infrastructure upgrades are required under Stage 1
- **Stage 2: Internal site optimisation:** Stage 2 would facilitate the remaining throughput increase (an additional 450,000 tpa of the total 950,000 tpa proposed) to be received and processed across the Eastern Creek REP. Stage 2 would also include:
  - Upgrade of existing internal roads as required
  - Earthworks for Stage 3 site establishment
  - Additional carparking and amenities
- **Stage 3: Installation of supporting infrastructure:** Stage 3 would comprise the redevelopment of the northeastern corner of the Proposal Site. This would comprise:
  - Construction and operation of a Site Workshop (relocating this activity from elsewhere within the Proposal Site to a dedicated enclosed facility)
  - Construction and operation of a skip bin Maintenance and Manufacturing Workshop
  - Construction of Basin B, a 2,150 m^3 stormwater detention basin inclusive of a 400 m^2 bio-retention system, located in the northeastern portion of the Proposal Site
  - Installation of landscaping, signage, security fencing and finishing works.

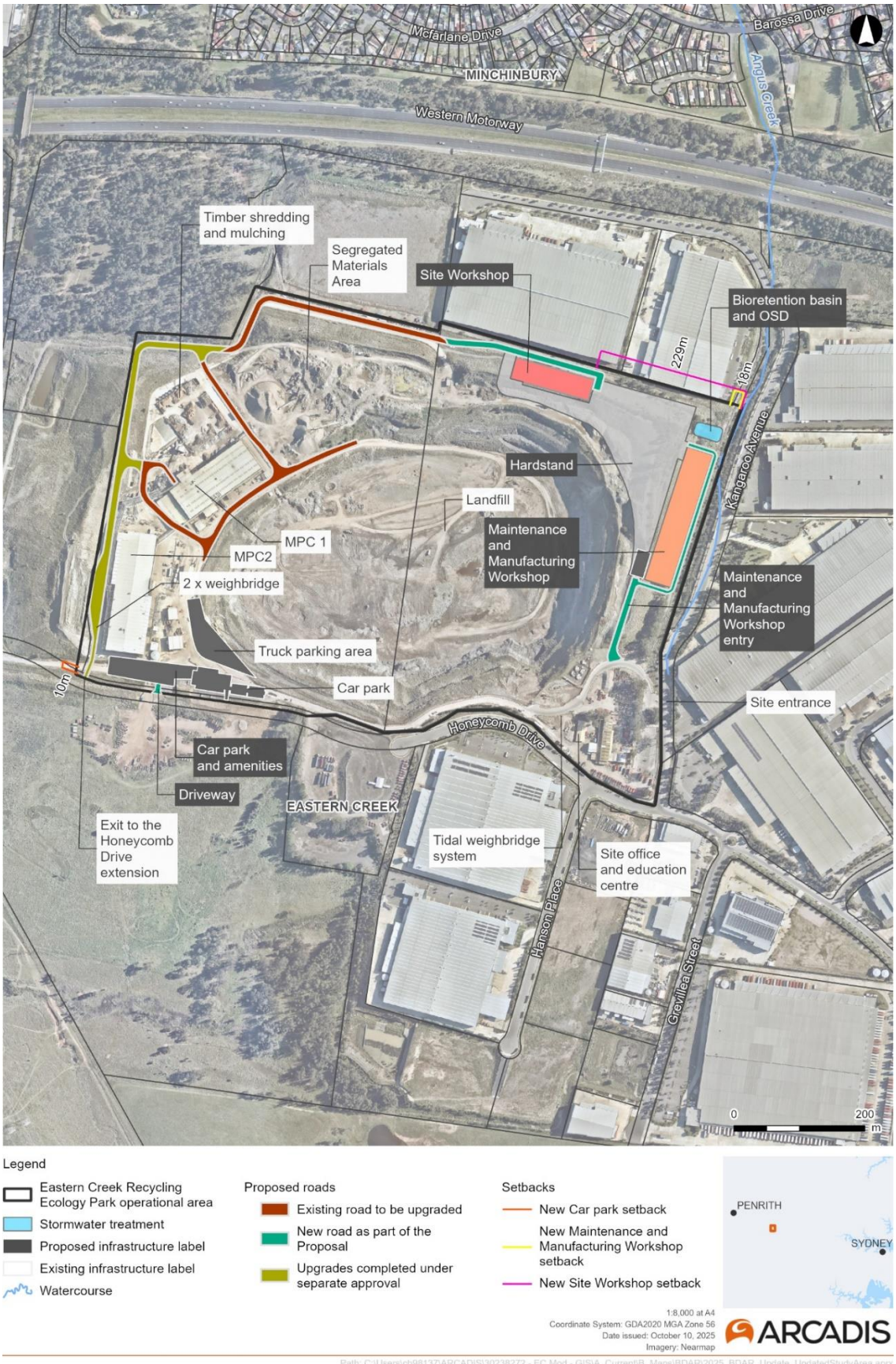


Figure 1-1 Proposal

1.2 Built form

This section provides a description of the built form of the key elements of the Proposal. As described in Section 1.1 the Proposal comprises three stages. Table 1-1 denotes which Stage of the Proposal each built element would be associated with (Section 1.3.1 provides a description of the construction phasing of these built elements for each Stage). Figure 1-2 provides a visualisation of the indicative final form of the Proposal. The existing Eastern Creek REP built elements would be utilised for all three stages of the Proposal. Modification 9 built elements, including the exit road onto Honeycomb Drive (including associated outbound weighbridge, wheel wash and weighbridge control office) and stormwater infrastructure, would be utilised for Stage 2 and Stage 3 of the Proposal. Note that there are no new built elements proposed for Stage 1.

Table 1-1 Key built elements of the Proposal

Built elements	Stage 1	Stage 2	Stage 3
Upgrades to existing roads		✓	
Site Workshop			✓
Maintenance and Manufacturing Workshop (including hardstand and additional carparking)			✓
Additional carparking adjacent to MPC2		✓	
Urban design and landscaping (including perimeter fencing)		✓	✓
Basin B water management infrastructure			✓

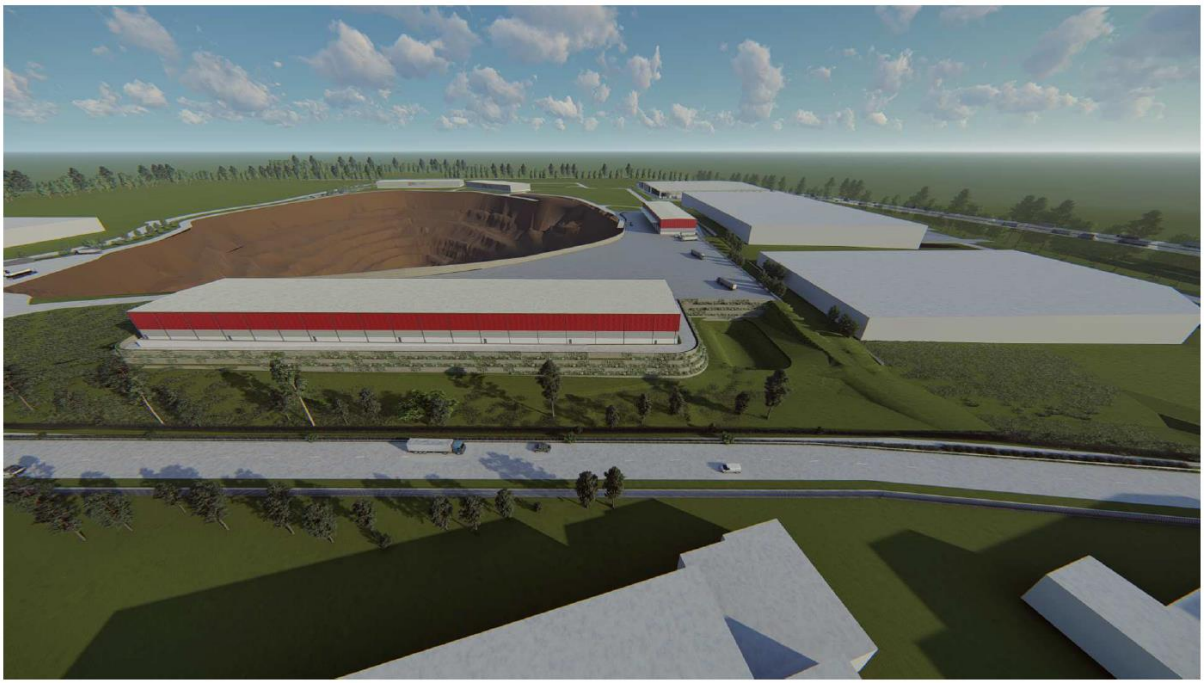


Figure 1-2 Visualisation of the indicative final form of the Proposal

1.2.1 Interaction with existing Eastern Creek REP

The Proposal would predominantly utilise existing built elements across the Eastern Creek REP. The key built elements that would be utilised by the Proposal would comprise:

- Waste management infrastructure:
  - The landfill
  - Resource recovery facilities (MPC1 and MPC2)
  - SMA
- Ancillary infrastructure and features such as site access, weighbridges and the internal road network
- Car parking and amenity areas
- Water management infrastructure.

In addition to the use of existing built elements across the Eastern Creek REP, new built form elements forming the Proposal are described in Sections 1.2.2 to 1.2.8.

1.2.1.1 Interaction with Modification 9

Modification 9 includes a connection to the Honeycomb Drive extension, as well as the construction of stormwater management infrastructure at the northern end of the Western Operational Area (refer to Figure 1-1). These modifications have been included as part of Modification 9 to the existing Eastern Creek approval (MP06_0139), separate to the Proposal. Construction of these modifications will be complete before Stage 2 of the Proposal proceeds.

Stage 2 of the Proposal would therefore be able to utilise the new connection to Honeycomb Drive throughout earthworks and site establishment, existing road upgrades, and more generally, improve operational efficiency at the site.

1.2.2 Internal road upgrades

New internal roads and upgrades to the existing internal road network would be completed within close proximity to MPC1, MPC2, SMA, Site Workshop and the Maintenance and Manufacturing Workshop.

Roads would be designed in accordance with safe operational speed limits and a two-way road corridor width of 10 m (including traffic lanes, drainage and vehicle barriers where required). All internal road pavements will be rigid (concrete). Pavements will be designed to satisfy the requirements of *Austroads Pavement Design Guide – A Guide to the Structural Design of Road Pavements* and recommendations provided as part of a geotechnical investigation undertaken for the Proposal Site. Internal roads are routinely inspected and maintained. New internal roads that form part of the Proposal would be subject to this ongoing inspection and maintenance regime. The internal road upgrades would include:

- Minor upgrading and widening of internal roads
- Resurfacing of internal roads where previous damage had occurred
- Maintenance of kerbing, guttering and drainage lines where needed.

1.2.3 Site Workshop

Stage 3 of the Proposal would include the construction of a shed for the purpose of providing an enclosed Site Workshop to service the entire Eastern Creek REP. The Site Workshop would be located in the northeastern corner of the Proposal Site. The Site Workshop would have a total footprint of approximately 3,950 m^2 and would have a height of approximately 14 m. The Site Workshop would provide a visual and acoustic buffer between neighbouring land uses to the north and the landfilling activities within the centre of the Eastern Creek REP.

The Site Workshop would comprise a steel shed with corrugated steel frame and cladding, approximately 14 m in wall height, with a corrugated steel sheeting roof pitched to a maximum height of approximately 14 m. There would be an awning and roller shutter doors along the southern side of the Site Workshop.

The Site Workshop would include a wash bay for trucks used in the operation of Eastern Creek REP, an internal site office and warehouse amenities. Water from the wash bay would be captured in a blind sump for pump out and disposal (at an appropriately licenced facility) as required. The proposed hardstand area adjacent to the southern side of the building and new internal road around the north would facilitate access to the broader Eastern Creek REP internal road network.

The Site Workshop would also include a 10 kL rainwater tank and fire services infrastructure

1.2.4 Maintenance and Manufacturing Workshop

The Proposal would include the construction of a Maintenance and Manufacturing Workshop for the purpose of maintaining and manufacturing skip bins for use within the Eastern Creek REP and broader Bingo network. The Maintenance and Manufacturing Workshop would be located in the northeastern corner of the Proposal Site adjacent to the Eastern Creek REP boundary along Kangaroo Avenue. The Maintenance and Manufacturing Workshop would have a total footprint of approximately 8,500 m^2 and would have a maximum height of 14 m. The Maintenance and Manufacturing Workshop would provide a visual and acoustic buffer between neighbouring land uses to the east and the landfilling activities within the centre of the Eastern Creek REP in lieu of the partially removed amenity berm.

The Maintenance and Manufacturing Workshop would comprise a shed with corrugated steel frame and cladding, approximately 14 m in wall height, with a corrugated steel sheeting roof pitched to a maximum height of approximately 14 m.

The proposed Maintenance and Manufacturing Workshop is a single storey building which would include an internal site office, warehouse amenities and a wash bay for trucks. The western perimeter of the building would consist of a series of roller shutter doors and an awning which would extend over the roller shutter doors to allow vehicles to load/unload under cover. A hardstand area located to the west of the building may be used for truck parking and bin storage and a car park for light vehicles would accommodate up to 32 light vehicles, subject to detailed design. Vehicles visiting the Maintenance and Manufacturing Workshop would enter and exit the Proposal Site via the existing site entrance on Kangaroo Avenue.

The Maintenance and Manufacturing Workshop would also include a 10 kL rainwater tank and fire services infrastructure.

1.2.5 Urban design and landscaping

A landscape plan has been prepared for the Proposal and is provided in Appendix F of the Amendment and Submissions Report (ASR). The landscape and urban design plan has been prepared for all elements of the Proposal and therefore applies to Stages 1, 2 and 3 (the 'Ultimate Build').

The building and structures included in the Proposal would be of a high design quality. Building colours and finishes would be compatible, and blend with, the surrounding land uses, including nonreflective colours. The Site Workshop and the Maintenance and Manufacturing Workshop would comprise precast and steel sheet (Colorbond) style facades.

Landscaping would be carried out across the Proposal Site. Landscaping would include a mix of native mature trees, groundcover and grasses. In particular, a 'green wall' using climbing plants on new terraced retaining walls along Kangaroo Avenue would be used along the eastern perimeter of the Proposal Site, between the Maintenance and Manufacturing Workshop and Kangaroo Avenue to provide a natural visual barrier. Landscaping would also be used along the southern perimeter to soften built elements such as the car parking area and DADI Drive from Honeycomb Drive.

Proposed landscaping locations would be predominantly planted with native and local indigenous species. The existing Environmental Management Strategy (EMS) and Landscape and Vegetation Management Plan (LVMP) will be updated to manage newly landscaped areas and the operation of the Proposal as required.

1.2.6 Water management infrastructure

To support the additional built form elements included with the Proposal, additional water management infrastructure would be installed to complement the existing infrastructure, including:

- A rainwater harvesting system comprising two rainwater tanks located within/adjacent to the Site Workshop and Maintenance and Manufacturing Workshop
- Diversion swales adjacent to the new internal roads diverting stormwater flow towards both existing and proposed stormwater detention basins
- A stormwater basin (Basin B) of 2,150 m^3, inclusive of a 400 m^2 bio-retention system, located in the northeastern portion of the Proposal Site
- A new Gross Pollutant Trap (GPT) incorporating capacity for removal of hydrocarbons will be installed in the northeast corner of the Proposal Site

1.2.7 Other and ancillary infrastructure

1.2.7.1 Additional carparking and amenities

The Proposal would include two additional carparks for light vehicles, including:

- An extension to the existing carpark to the south of MPC2 which would accommodate up to 54 additional light vehicles, subject to detail design
- A new carpark to the to the west of the Maintenance and Manufacturing Workshop which would accommodate up to 32 light vehicles, subject to detailed design.

The existing entrance to the southern car park would be shifted from the current approved location under Modification 8 (approved March 2021) to the west. Co-located with the new southern carpark would be a small amenities structure of 500 m^2.

1.2.7.2 Fire management infrastructure

The Proposal would utilise existing and upgraded fire management infrastructure within the existing resource recovery facilities and areas. A Fire Safety Strategy Report has been prepared for the Proposal by Innova Services and is provided in Appendix O of the EIS. As part of detailed design and prior to operations, the Fire Safety Strategy Report would be finalised in consultation with FRNSW and implemented.

The Fire Safety Strategy Report upgrades that would be confirmed during detailed design to be implemented relate to the:

- Fire appliance hardstand serving the existing sprinkler booster assembly
- Existing fire hydrant system serving MPC1
- Water supply capacity and flow duration available to the existing fire hydrant system serving MPC1 and MPC2, and the existing sprinkler system serving MPC2
- Emergency service vehicular access
- Dedicated quarantine area for the breakdown and extinguishment of stockpiles.

The Site Workshop and Maintenance and Manufacturing Workshops are not deemed large-isolated buildings under the National Construction Code (NCC) or subject to the FRNSW Waste Management Facility Guidelines as they would not be used for material or waste processing. The buildings would be designed in accordance with the requirements of the Building Code of Australia (BCA).

1.2.7.3 Utility management

The Proposal has been designed to minimise the impacts on utilities services and communications identified at the Eastern Creek REP. Table 1-2 provides a summary of the existing utility services and the likely upgrades that will be required to service the Proposal.

Table 1-2 Existing utility services and upgrades required to service the Proposal

Utility Service	Existing assets	Required Upgrades
Potable Water	• DN375 ductile iron pipes main to the western end of Honeycomb Drive (terminates within the Proposal Site approx. 400m east of the MPC2 building). • DN300 ductile iron pipes main on the eastern side of Kangaroo Avenue.	Minor upgrades to internal site reticulation to provide water supply to the proposed Site Workshop and Maintenance and Manufacturing Workshop.

Utility Service	Existing assets	Required Upgrades
Sewerage	• DN90 polyethylene pipe main on the southern side of Honeycomb Drive • DN225 polypropylene pipes main on the eastern side of Kangaroo Avenue	Extension of the internal wastewater management system, to connect the proposed Site Workshop and Maintenance and Manufacturing Workshop to the Leachate Management System.
Recycled Water	• No reticulated recycled water in the vicinity of the Proposal Site • Stored water from the northern and southern OSD basins is transferred via a pump station to four above ground water reuse tanks (total capacity 112.5kL), where it is reused in water carts and for truck wet-down.	Upgrades to the internal recycled water system to provide linkage to storage dam in the north-west treatment train.
Electrical and Lighting	• Underground electrical on the northern side of Honeycomb Drive and the eastern side of Kangaroo Avenue.	New connection to mains network to provide additional power and lighting to the proposed workshops.
Gas	• No reticulated gas assets in the vicinity of the Eastern Creek REP site.	No requirements for gas servicing as part of the Proposal.

1.2.8 Contributions

The Proposal is aligned with existing approved uses and activities, and is located within land covered under the existing approval MP06_0139 to which VPA 2012-5089 applies. Under the existing VPA 2012-5089, an initial contribution has been made and regular payments are required to be paid on 30 June each year until the 20th (and final) instalment is made.

The Satisfactory Arrangements Certificate (SAC) for the Proposal does not apply to SSD 11606719 on the basis that Bingo already have an existing VPA in place (VPA 2012-5089) which includes a dollar per hectare contribution rate for the same land parcel that is the subject to the Proposal. While the Proposal constitutes a new stand-alone SSD application an applicable SAC and associated contributions arrangement for regional infrastructure is in place for land that is the subject of SSD 11606719.

1.3 Construction

1.3.1 Timing and construction phases

As noted above each Stage of the Proposal would be constructed independently. The timing of each Stage would be contingent on a number of factors but are described indicatively below.

1.3.1.1 Stage 1: Initial throughput increase

No construction works are proposed as part of Stage 1.

1.3.1.2 Stage 2: Internal site optimisation

As shown in Table 1-1 the key built form element proposed as part of Stage 2 would comprise the connection to the Honeycomb Drive extension, internal road upgrades and earthworks for Stage 3. Table 1-4 provides a highly indicative breakdown of construction tasks associated with Stage 2.An optimised internal road network would be constructed which includes new and upgraded roads within the Proposal Site, including a new road to the proposed Maintenance and Manufacturing Workshop from within the Eastern Creek REP, near the existing site entrance.

Stage 2 construction would be anticipated to take approximately 16 months and would comprise:

- Phase 2a: Site establishment including earthworks and removal of the northeastern amenity berm as required
- Phase 2b: Establishment of pavement, road surface and kerbing
- Phase 2c: Internal road works and construction of a carpark and amenities to the south of MPC2 and west of the proposed Maintenance and Manufacturing Workshop
- Phase 2d: Signage, line marking and commissioning

Table 1-3 Stage 2 construction timing and phasing (indicative)

Month >	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 2a																
Phase 2b																
Phase 2c																
Phase 2d																

1.3.1.3 Stage 3: Installation of supporting infrastructure

As shown in Table 1-1 the key built form element proposed as part of Stage 3 would comprise the Site Workshop and the Maintenance and Manufacturing Workshop. Stage 3 construction would be anticipated to take approximately 14 months to complete and would comprise:

- Phase 3a: Site establishment
- Phase 3b: Construction of the Site Workshop
- Phase 3c: Construction of the Maintenance and Manufacturing Workshop
- Phase 3d: Installation of perimeter fencing, landscaping and signage
- Phase 3e: Commissioning.

The individual timing of the above Phases would be subject to on site operational demands and may occur concurrently or as individual activities. Table 1-4 provides a highly indicative breakdown of construction tasks associated with Stage 3.

Table 1-4 Stage 3 construction timing and phasing (indicative)

Month >	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Phase 3a														
Phase 3b														
Phase 3c														
Phase 3d														
Phase 3e														

1.3.2 Construction Activities

1.3.2.1 Stage 2: Internal site optimisation

Key activities associated with Stage 2 of the Proposal would comprise the following activities:

- Phase 2a: Site establishment:
  - Establishment of works boundary, construction compound and stockpiling area
  - Vegetation clearing, mulching and grubbing. Mulched vegetation would be stockpiled and used on site for landscaping where possible
  - Earthworks, levelling and partial removal of amenity berms. Earthworks would require approximately 810,00 m^3 of material to be removed from the amenity berm in the northeastern corner of the Proposal Site, for the levelling of the northeastern corner of the Proposal Site for Stage 3 works. Material removed from the amenity berm would be evaluated to determine its appropriateness for reuse elsewhere within the Eastern Creek REP (e.g., as landfilling capping material) and approximately 100,000 m^3 would be reused for construction. The remaining material would be taken off site for reuse or disposal
  - Establishment of road base.
- Phase 2b: Establishment of pavement, road surface, stormwater infrastructure and kerbing:
  - Establishment of diversion drainage systems adjacent to internal road, directing stormwater flows towards one of two OSD basins constructed as part of Modification 9
  - Intersection works
  - Establishment of pavement, road surface and kerbing
  - Pavement resurfacing of sealed roads
  - Establishment of the bioretention / onsite detention basin in the north-eastern corner of the Site
- Phase 2c: Other minor internal road works and construction of amenities and carpark to the south of MPC2 and the west of the Maintenance and Manufacturing Workshop:
  - Regrading, repaving and general maintenance of the existing road network
  - Regrading and establishment of pavement for a carpark to the south of MPC2 and west of the Maintenance and Manufacturing Workshop
  - Construction of amenities building to the south of MPC2
- Phase 2d: Signage, line marking and commissioning
  - Line marking
  - Demobilisation
  - Commissioning.

1.3.2.2 Stage 3: Installation of supporting infrastructure

Key activities associated with the construction of the built form elements comprising Stage 3 of the Proposal would comprise the following activities:

- Phase 3a: Site establishment:
  - Establishment of works boundary, construction compound and stockpiling area
  - Establishment of levelled earthwork pads under the Site Workshop and Maintenance and Manufacturing Workshop areas
- Phase 3b: Construction of the Site Workshop:
  - Laying of site services infrastructure
  - Establishment of base slab and foundations
  - Establishment of driveway access
  - Erection of the Site Workshop structure
  - Building fit-out
  - Connection to key services.
- Phase 3c: Construction of the Maintenance and Manufacturing Workshop:
  - Laying of site services infrastructure
  - Establishment of base slab and foundations
  - Establishment of driveway access
  - Erection of the Maintenance and Manufacturing Workshop structure
  - Installation of plant and equipment (i.e., Welding bays, wash bay, storage racking, spray booth, internal amenities)
  - Connection to key services.
- Phase 3d: Installation of perimeter fencing, landscaping and signage:
  - Installation of perimeter fencing
  - Installation of landscaping and signage
  - Installation of solar panels.
- Phase 3e: Commissioning:
  - Demobilisation
  - Commissioning.

1.3.3 Construction workforce and hours

For each Stage, works would be undertaken during standard construction hours:

- 7 am to 6 pm Monday to Friday
- 8 am to 1 pm Saturday
- No works on Sundays or Public Holidays.

The number of construction personnel would be determined by the stage and the construction activities occurring (described in Section 1.3.2). The construction workforce would likely peak where multiple construction phases and activities occur concurrently (which would be contingent on internal operational needs and final construction details). Indicative peak construction phases for each Stage, and their associated workforce, are presented in Table 1-5.

Table 1-5 Peak construction phases and workforce

Stage	Peak construction phase/s	Anticipated peak workforce
Stage 2	Overlapping construction of: • Phase 2a • Phase 2b • Phase 2c •	40
Stage 3	Overlapping construction of: • Phase 3b • Phase 3c	12

1.3.4 Plant and equipment

Various types of plant and equipment would be required for the construction of the Proposal. A summary of the plant and equipment that are likely to be used during the construction of the Proposal is provided in Table 1-6.

Table 1-6 Plant and equipment per construction stage

Equipment	Construction Stage	
	Stage 2	Stage 3
Excavators and backhoes	✓	✓
Forklifts		✓
Cherry pickers and mobile cranes		✓
Water trucks	✓	✓
Handheld tools	✓	✓
Concrete agitators, pumps and saws	✓	✓
Mulcher	✓	✓
Roller (vibratory and static)	✓	✓
Scraper	✓	✓

1.3.5 Construction traffic movements

Vehicles associated with the construction works would include light vehicles (workers travelling to and from the Proposal Site at the start and finish of shift, during lunch breaks and to conduct errands), and heavy vehicles delivering construction plant and equipment, materials and removing waste from construction activities.

The volume of construction traffic would be determined by the stage and the construction activities occurring (described in Section 1.3.2). Construction traffic would likely peak where multiple construction phases and activities occur concurrently (which would be contingent on internal operational needs and final construction details). The majority of vehicles associated with construction would be generated by the removal of excess spoil from the Proposal Site during Stage 2. Indicative peak construction phases for each stage, and their associated construction traffic volumes, are presented in Table 1-7.

Table 1-7 Peak construction phases and construction vehicle movements

Stage	Peak construction phase/s	Peak daily construction traffic movements (two-way)
Stage 2	Overlapping construction of: • Phase 2a • Phase 2b • Phase 2c	• 40 light vehicle movements • 72 medium and/or heavy vehicle movement
Stage 3	Overlapping construction of: • Phase 3b • Phase 3c	• 12 light vehicle movements • 24 medium and/or heavy vehicle movements

1.3.6 Construction ancillary facilities

Two construction ancillary facilities would be required for construction of Stage 2 of the Proposal and one construction ancillary facility for Stage 3. The construction ancillary facilities including compound, temporary site office and stockpiling areas would be established for construction and would be located within the Eastern Creek REP boundary adjacent to the location of the construction works taking place.

1.3.7 Construction Environmental Management Plan

A CEMP will be prepared for the construction of the Proposal and would cover construction of Stage 2 and Stage 3 of the Proposal. This CEMP will be prepared based on the mitigation and management measures in this ASR (refer to Chapter 7) and the conditions of approval provided by DPE. The CEMP will provide the framework for the management of all potential environmental impacts resulting from construction activities.

1.4 Operation

The Proposal predominantly relies on continued operation of the existing Eastern Creek REP with additional annual throughput and the operation of ancillary infrastructure. The operation of the Proposal would align with the three proposed stages:

- **Stage 1 Initial throughput increase**: Stage 1 would comprise 500,000 tpa of additional throughput to be received at the Eastern Creek REP to enhance resource recovery outcomes by increasing utilisation of on site processing capabilities. The majority of the increased throughput would be received and processed within MPC2. However, some throughput may be diverted to other waste management infrastructure within the Eastern Creek REP to meet market requirements.
- **Stage 2 Internal site optimisation**: Stage 2 would facilitate the remaining throughput increase (an additional 450,000 tpa of the total 950,000 tpa proposed) to be received and processed across the Eastern Creek REP. As per Stage 1, the majority of the increased throughput would be received and processed within MPC2. However, some throughput may be diverted to other waste management infrastructure within the Eastern Creek REP to meet market requirements. Stage 2 would also result in operational changes to internal traffic movements, with the majority of vehicles exiting via the proposed exit to the Honeycomb Drive extension (refer to Figure 1-3).
- **Stage 3 Installation of supporting infrastructure**: Stage 3 would comprise the operation of the Site Workshop and the Maintenance and Manufacturing Workshop (refer to Figure 1-4). This section provides a detailed description of the operational changes forming the Proposal

This section provides a detailed description of the operational changes forming the Proposal.

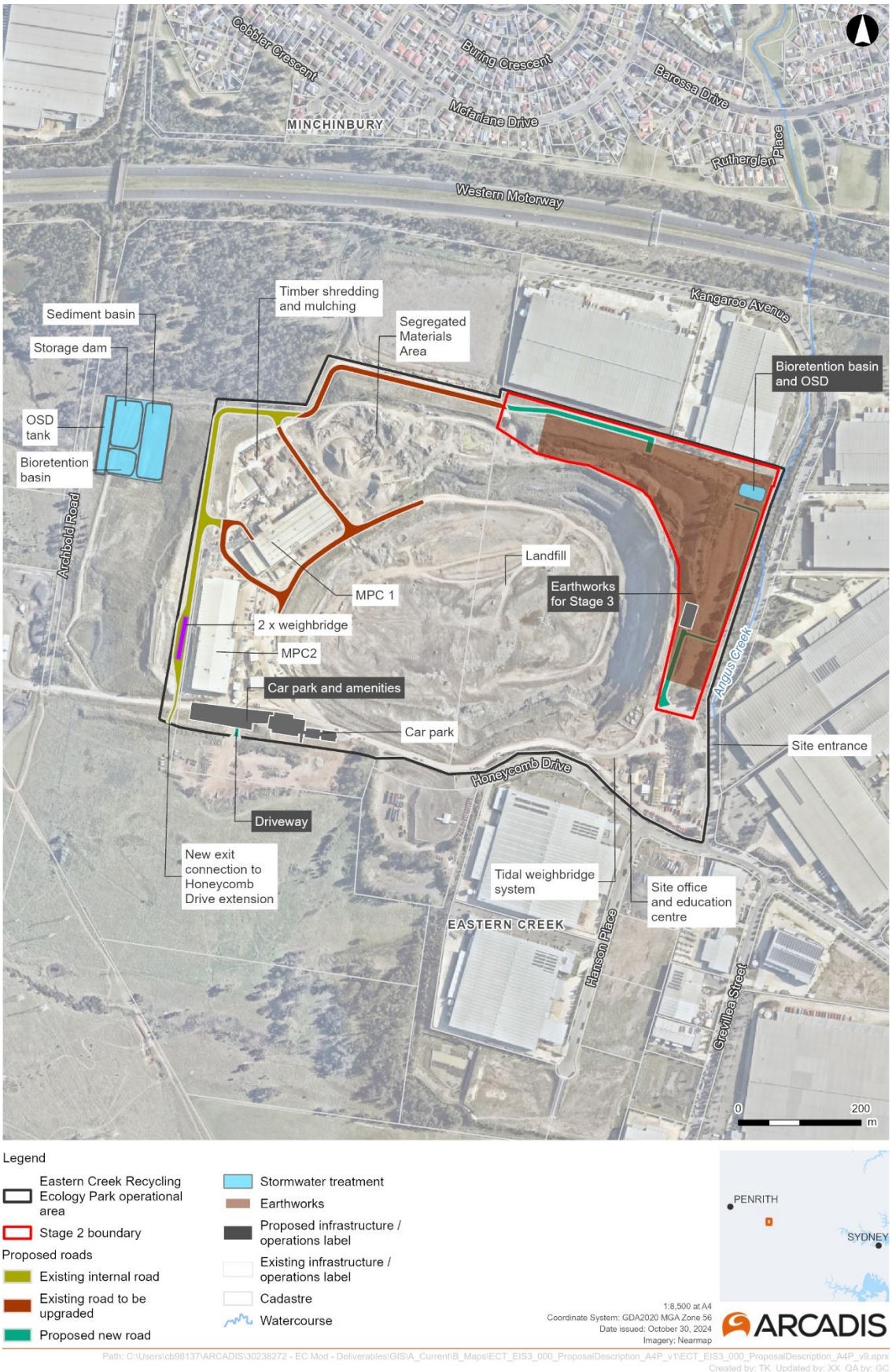


Figure 1-3 Proposed Stage 2 operations

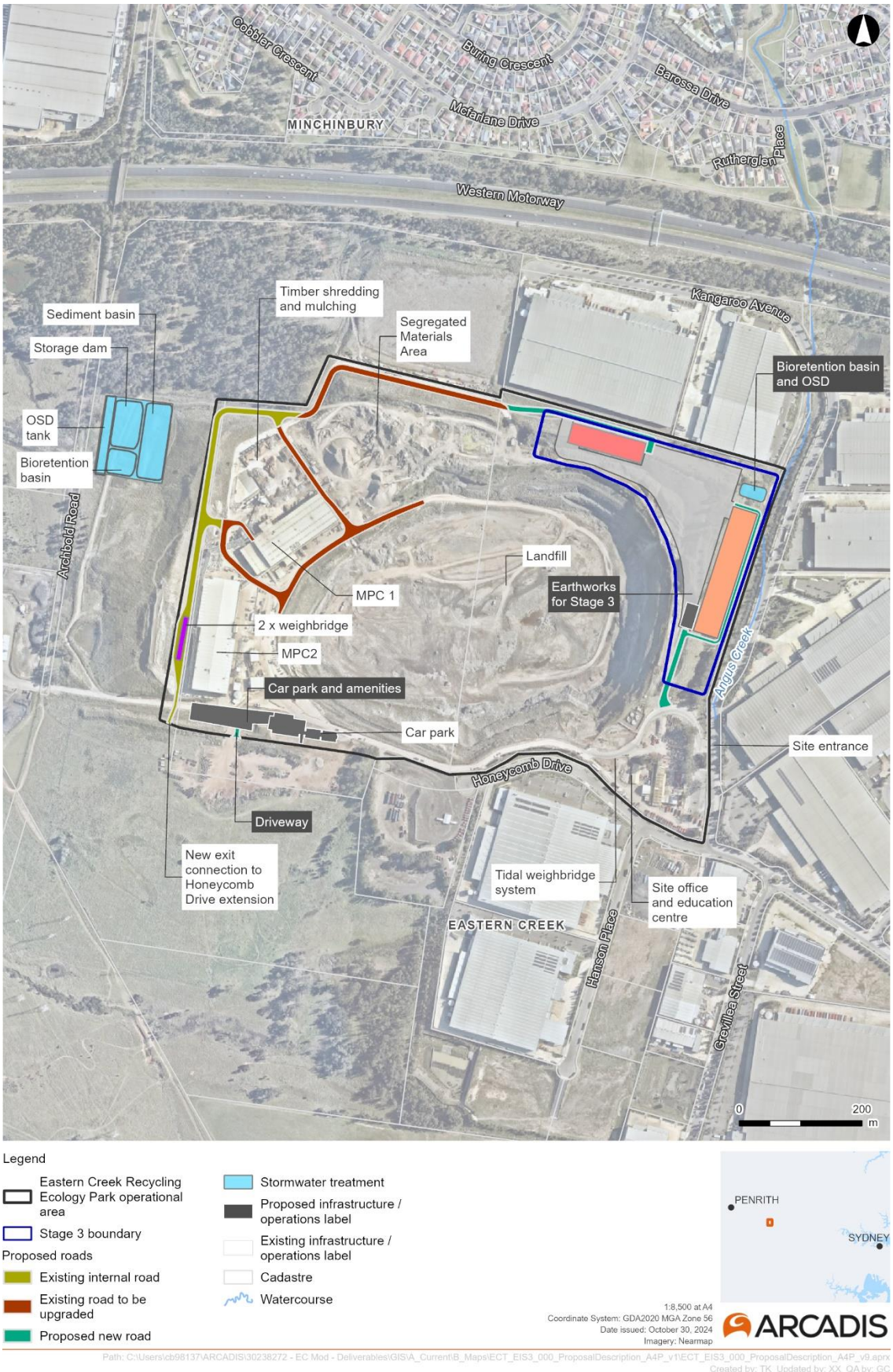


Figure 1-4 Proposed Stage 3 operations

1.4.1 Interaction with existing REP

The Proposal would result in the continued operation of the Eastern Creek REP largely consistent with its current operations. The primary changes to the current operations would comprise:

- Increased waste throughput, and processing, within MPC2
- Marginal increase of waste received at other waste management infrastructure within the Eastern Creek REP
- Changes to internal traffic flows
- Operation of the Site Workshop and Maintenance and Manufacturing Workshop.

The existing operations at the Eastern Creek REP are being undertaken in accordance with the Project Approval (MP 06_0139). Once approved and at Full Build, the operation of the Eastern REP including the Proposal would comprise (changes from existing shown in ***bold***):

- ***Accept up to 2.95 Mtpa*** of C&D and C&I waste and landfilling of the quarry void of up to 1 Mtpa of non-putrescible waste (including asbestos and other non-recyclable waste), excluding residual chute waste from the materials processing centres
- The operation of MPC1 and MPC2 to recover recyclable material from C&D and C&I waste streams as well as utilisation of the chute and maintenance activities
- Crushing, grinding and separating works to process waste masonry material located in an area earmarked as the Segregated Materials Area (SMA)
- Receipt of segregated materials and truck delivery for landfilling activities
- Use of fixed and mobile plant to process (sort, screen, sieve, crush, grind, shred, chip and compost) waste to produce products for application to land (road base, aggregate, landscaping soil, bedding sand, mulch, wood chip, compost and asphalt derived products)
- Quarantine and transfer of unsuitable wastes to off-site licensed waste facilities for disposal
- ***Operation of associated infrastructure, plant and equipment; including upgrading of internal roads and reshaping of earthen amenity berms***
- ***Operation of a Site Workshop and Maintenance and Manufacturing Workshop***
- ***Stockpile limit up to 950,000 tonnes***
- Stockpiles of 50 t of tyres and 20,000 t of green waste (stockpiles for all other material cannot exceed the height of the berms ***and/or 12 m***, impervious barriers or visual screens).

Sections 1.4.2 to 1.4.15 describe the key operational elements of the Proposal.

1.4.1.1 Interaction with Modification 9

Stage 2 and 3 of the Proposal would occur after the construction of the connection to Honeycomb Drive exit (including installation of weighbridges) as well as the construction and commencement of operation of the stormwater infrastructure at the WOA.

Site operation during and after Stage 2 and 3 of the Proposal would include use of these site upgrades.

1.4.2 Waste types and volumes

The Proposal would not alter the waste types received at the Proposal Site and would not seek to amend the current landfilling limit of one Mtpa of non-putrescible waste.

In 2021, Bingo undertook the bulk of construction for MPC2; a state-of-the art large scale processing facility capable of significant resource recovery. MPC2 has been designed to recover product from mixed C&I and light C&D waste streams, complementing the operation of MPC1. Due to the scale and sophistication of the plant and equipment within MCP2, the facility would have the ability to contribute substantially to improve

recovery rates. The facility has a theoretical processing capacity of up to 7,000 t of brick, concrete, timber, metal, soils, plastics, paper, cardboard and other recyclable materials a day and has manoeuvring space for 13 vehicles to tip simultaneously.

Given Eastern Creek REP's current throughput limit of 2 Mtpa and without an increased throughput limit, MPC2 can only process waste by diverting it from another resource recovery facility (MPC1 or SMA) within Eastern Creek REP and reducing overall recovery maximisation. The Proposal would increase the waste throughput across Stage 1 and Stage 2 by 950,000 tpa. It is intended that the majority (if not all) of this throughput increase would be directed to MPC2, to capitalise on the underutilised potential of this infrastructure and enhance resource recovery in a meaningful way for the Greater Sydney region.

Table 1-6 describes the waste types and volumes with the Proposal (changes from existing shown in bold). As noted in Section 2.7.2, the nature and volume of waste processed within each area is dependent on market conditions at any given time and can fluctuate due to external factors. In some cases, waste would pass through more than one piece of waste management infrastructure within the Eastern Creek REP (e.g., waste received at MPC1 may end up as residual waste deposited within the landfill).

A detailed list of the authorised waste types approved for receival and processing at the Eastern Creek REP and provided at Appendix D.

Table 1-6 Waste types and volumes with Proposal

Waste management infrastructure	Typical waste types	Typical waste source	Indicative waste volume
Landfill	• Residual mixed waste	• MPC1 and MPC2	100,000 – 200,000 tpa
	• Residual waste (C&D and General Solid Waste (non-putrescible)) • Contaminated soil (including asbestos)	• Third party direct deliveries • Bingo fleet direct deliveries • Transfer stations and RRCs (residuals)	Up to 1 Mtpa
MPC1	Mixed or co-mingled C&D and C&I waste consisting of metals, brick, concrete, plasterboard, soil, aggregates, plastics and a range of building and demolition wastes.	• Third party direct deliveries • Bingo fleet direct deliveries • Transfer stations and RRCs	300,000 - 400,000 tpa ***(Once Stage 1 is operational)***
MPC2	Co-mingled C&I waste, and light C&D waste consisting of plastics, paper and cardboard, ferrous and non-ferrous metals, glass, soils and aggregates, and natural timbers.	• Third party direct deliveries • Bingo fleet direct deliveries • Transfer stations and RRCs	***Once Stage 1 is operational:*** ***700,000-800,000 tpa*** ***Once Stage 2 is operational:*** ***1.1M – 1.5Mpta***
SMA	C&D waste including: • Bricks	• MPC1 and MPC2 • Third party direct deliveries	200,000-300,000 tpa

Waste management infrastructure	Typical waste types	Typical waste source	Indicative waste volume
	• Concrete • Asphalt • Aggregate • Soil • Timber (timber storage yard) • Tyres (tyre stockpile area)	• Bingo fleet direct deliveries • Transfer stations and RRCs	
Refuse Derived Fuel (RDF)	• Residual non-recyclable engineered timber	• MPC2	50,000 tpa

1.4.2.1 Recovered product output

A number of product streams are derived from resource recovery activities within MPC1, MPC2 and the SMA. These product streams are on-sold to third parties for use offsite generally for infrastructure and major projects, or further resource recovery. The product streams from the Proposal would be consistent with the current operations.

1.4.3 Waste disposal, processing and resource recovery

The waste management infrastructure at the Eastern Creek REP would operate consistently with the current operations, with minimal change, described below.

1.4.3.1 Landfill

Minimal changes are proposed to the waste disposal practices within the landfill. Small additional quantities of residual waste may enter the landfill via the chute (as residual from MPC2 due to its proposed increased throughput and processing). However, operations of the landfill would be consistent with current operations and continue to operate within existing Project Approval limits.

1.4.3.2 Materials Processing Centre 1

With the commissioning and increased throughput within MPC2, discussed below, waste directed for processing within MPC1 would become more homogenous, focusing on larger C&D waste and optimising resource recovery outcomes. The general operational practices of MPC1 would be unchanged as a result of the Proposal.

1.4.3.3 Materials Processing Centre 2

The Proposal would predominantly alter the operations of MPC2 in the form of increased throughput. Notwithstanding the increased throughput, the operational nature of MPC2 would be unaltered from the existing operations.

1.4.3.4 Segregated Materials Area

Minimal changes are proposed to waste drop-off or product collection within the SMA. Small additional quantities of material may be directly received in this area as a result of the increased throughput, however operations of the area would operate consistent with current operations.

1.4.4 Site Workshop

The Site Workshop would provide an enclosed shed to carry out maintenance activities that are already occurring on site for plant and equipment utilised within the Eastern Creek REP, as well as heavy vehicles accessing Eastern Creek REP when required. The Site Workshop would also provide secure storage and maintenance area for:

- Handheld tools
- Vehicles, mobile plant and equipment (forklifts etc) not stored within specific waste management infrastructure on site
- Spare parts for plant and equipment
- Caged and bunded cleaning products and chemicals required to support operations).

Washdown facilities would also be provided for mobile plant and vehicles on site within the Site Workshop.

1.4.5 Maintenance and Manufacturing Workshop

The Maintenance and Manufacturing Workshop would primarily be used for the manufacturing and maintenance of skip bins including those used within the Eastern Creek REP and broader Bingo network. This facility would not be used for handling or processing waste materials.

Key activities would include:

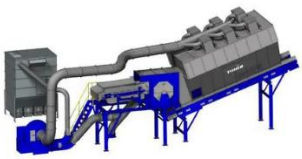
- Manufacture of new bins for use within the Eastern Creek REP and broader Bingo network including cutting of steel, welding, fabrication and painting
- Dedicated painting and assembly booths with internal hydraulic sub-grade lifts
- Bin washing and cleaning within a dedicated washdown area
- Bin repair and maintenance of bins brought into the Eastern Creek REP
- Caged and bunded cleaning products and chemicals required to support operations
- Operation of mobile plant and equipment such as forklifts and gantry cranes.

Based on similar facilities and the anticipated market demand, the facility would produce in the order of 5,000 new bins per annum across a range of sizes and refurbish / repair around 5,000 bins per annum. However, this is subject to market conditions and Bingo's requirements.

1.4.6 Plant and equipment

The Proposal would utilise existing fixed and mobile equipment within the waste management infrastructure across the Eastern Creek REP. The majority of the proposed throughput increase would be processed through MPC2. Processing equipment currently within MPC2 (as approved by MP 06_0139-Mod-8), would continue to be used and has sufficient capability to cater for the proposed increased throughput. Due to the reliant nature of the Proposal on the plant and equipment within MPC2, a detailed description of the key equipment types (approved) has been provided in Table 1-7 below.

Table 1-7 Description of processing equipment

Plant/equipment	Example	Description
Feed hoppers (x2)		The feed hoppers regulate the flow of the waste stream onto the recycling plant.
Mechanical shredders		Reduces the size of the waste materials to a size of 400-450 mm. The waste is then transferred onto a transfer conveyor and passes under a magnet to remove any large ferrous metals. The waste is then transferred to the waste screens.
Waste screens		The waste is transferred to the Waste Screen Feeder Conveyor and fed into a Waste Screen and screened into two fractions. The waste screen uses an unbalanced motor to cause the screen to vibrate, which in turn, causes the material to “cascade” across the screen. There are lifting bars fitted over the screens to ensure that the larger material does not block or cover the potential screening area and allows the fines to pass through the screen.
Flip flops		Consists of a number of frames, moving relative to each other, flexibly mounted within a static support structure. Transverse mesh support beams are alternatively attached to the inner and outer frames. The materials are screened into different size fractions before being conveyed to the next stage in the process.
Single and double drum separators		Following being screened and being passed through the flip flop screens, the materials are then passed through Single Drum Separators (SDS) or Double Drum Separators (DDS) where it separates light from heavy fractions. The lights from the SDS are discharged onto SDS Lights Collection Conveyor then onto the waste transfer conveyors. The fractions from the SDS are then combined, passed through Overband Magnets to remove any remaining ferrous metals from the material. The ferrous fraction is collected onto the Ferrous Discharge conveyor. The remaining material will then be conveyed to the Eddy Current Separator.

Plant/equipment	Example	Description
Eddy current separators		The material will be discharged onto a vibrating feeder, in order to maximise the spread of material. This will also liberate any material from the non-ferrous. The Eddy Current removes the non-ferrous metals by means of inducing “Eddy Currents” into the non-ferrous items through a high-speed rotor. Here, once separated, the Ferrous and non-Ferrous material will be collected by the relevant conveyors and stockpiled in a bay underneath. The remaining timber fraction continues towards the volumetric splitter. This splitter separates the material into two lines which passes the timber fractions into Optical separators.
Optical sorters		These optical sorters use Near Infra-Red (NIR) technology to detect different types of material. Once the selected material has been detected, the optical separator uses jets of compressed air to eject the selected products at high speed. These optical separators are single valve NIR optical separator’s which means they can positively eject one product while leaving the residual product to pass on.
X-ray sorters		These machines use x-ray technology to sort waste according to its atomic density. The machines are fitted with a high variable power X-ray generator combined with a new generation dual energy detector with an increased resolution and detection capacity. Once the selected material has been detected, the X-ray machine uses jets of compressed air to eject the selected products at high speed.
Conveyers and cranes		A series of conveyors and cranes infeed and transfer waste between the various processing equipment within MPC2.
Mobile plant		Various items of mobile plant (up to 6) for movement and handling of waste (CAT 972 or similar).

In addition to the use of plant and equipment within waste management infrastructure across the Eastern Creek REP, the Site Workshop and Maintenance and Manufacturing Workshop would utilise additional plant and equipment including:

- Site Workshop:
  - Handheld tools
  - Hydraulic lifts (e.g., for raising machinery for underneath maintenance)
  - Forklifts
  - Gantry cranes.
- Maintenance and Manufacturing Workshop
  - Gantry cranes
  - Forklifts
  - Handheld tools.

1.4.7 Waste storage

The existing maximum volume of waste / product stored on site at any one time is currently dictated by the one time storage limit of 667,000 tonnes under EPL 20121. However, Bingo is seeking to increase the stockpile authorised amount to 950,000 tpa. The EPL will need to be amended to reflect the increase in proposed stockpile volumes. An application will be made to the NSW EPA to vary EPL 20121 to increase the one time storage limit to 950,000 tpa. Final stockpile volumes would be confirmed and approved as part of that EPL amendment process. No changes are proposed to the current waste storage limits or arrangements as part of the Proposal, as prescribed on the Stockpile Management Plan shown in Table 1-8.

Table 1-8 Eastern Creek REP product stockpiles

Stockpile ID	Location	Material type	Combustible/non-combustible	Weight (tonnes)
1	SMA	BC	Non-combustible	406,000
1A	SMA	BC	Non-combustible	43,820
2	SMA	BC	Non-combustible	337,350
3	SMA	BC	Non-combustible	70,870
4	SMA	BC	Non-combustible	49,562
5	SMA	BC	Non-combustible	18,354
6	MPC1 (Eco Products area)	WOOD	Combustible	600
7	MPC1 (Eco Products area)	WOOD	Combustible	440
7A	MPC1 (Eco Products area)	WOOD	Combustible	240
8	MPC1 (Eco Products area)	WOOD	Combustible	560
10	MPC1 (Eco Products area)	WOOD	Combustible	600

Stockpile ID	Location	Material type	Combustible/non-combustible	Weight (tonnes)
10A	MPC1 (Eco Products area)	WOOD	Combustible	600
11	MPC1 (Eco Products area)	WOOD	Combustible	600
12	MPC2	MIX	Combustible	522
13	MPC2	MIX	Combustible	3,053
14	MPC2	MIX	Combustible	522
15	MPC2	FE	Non-combustible	160
16A	MPC1	MIX	Combustible	600
16B	MPC1	MIX	Combustible	600
16C	MPC1	MIX	Combustible	600
17A	MPC1	MIX	Combustible	600
17B	MPC1	MIX	Combustible	600
17C	MPC1	MIX	Combustible	360
17D	MPC1	MIX	Combustible	360
18	MPC1	FE	Non-combustible	248
19	MPC1	AGG	Non-combustible	157
20	MPC1	BC	Non-combustible	600
21	MPC1	AGG	Non-combustible	48
22	MPC1	AGG	Non-combustible	61
23	MPC1	SOIL	Non-combustible	595
24	MPC1	AGG	Non-combustible	80
25	MPC1	MIX	Combustible	600
Total				**939,962**

1.4.8 Non-conforming waste

Any material not included within the defined accepted waste streams described in Section 1.4.2, approved under MP 06_0139 and EPL 20121, is considered to be 'non-conforming' waste.

The Proposal would not involve the acceptance of hazardous waste (with the exception of asbestos already accepted in the landfill) or non-confirming wastes. However, on occasion, items may be discovered in incoming waste streams that contain hazardous substances or non-conforming waste. These materials would be handled in accordance with the existing EMS and existing Waste Monitoring Program. Separate areas for storage of non-conforming waste, including unexpected finds and dangerous goods are demarcated within the holding pits of both MPC1 and MPC2.

Key procedures for managing non-conforming waste include:

- Checking of incoming waste loads at weighbridges and rejection of non-conforming deliveries
- Checking and inspection of incoming waste prior to its stockpiling or processing to minimise the risk of non-conforming material in processed and recovered waste materials. If identified at the tip floor, loads are reloaded into the same vehicle
- Disposal at an appropriately licenced facility
- Recording details of non-complying waste generators
- Review of the waste processing systems in-line with EPA requirements
- Increasing the level of appropriate and safe recycling of waste in a sustainable and environmentally sound manner.

Given that a large portion of the incoming product would be sourced from transfer stations, there is a high degree of quality control undertaken prior to the waste being received at the Proposal Site. Incoming waste from transfer stations would be inspected and pre-sorted at the transfer station to the acceptable standard required for the Proposal and would consist of complying waste streams.

1.4.9 Waste tracking

Waste tracking will continue to be undertaken accordance with the approved waste monitoring program in place for Eastern Creek REP. Part 3 of the *Protection of the Environment and Operations (Waste) Regulation 2014 (PoEO (Waste) Regulation)* requires the tracking of incoming and outgoing waste material in accordance with the Waste Levy Guidelines. Records are kept and maintained in accordance with the Bingo waste information system and Waste Monitoring Program and include:

- Volume, type and stream of incoming and outgoing waste material
- Volume and description of any other incoming and outgoing material
- Date and times of incoming and outgoing waste material
- Name and address of origin and destination facilities
- Transport vehicle registrations and weights.

This data is captured by electronic data capture systems at the automated weighbridges operating at the entry and exit points across the Eastern Creek REP. In the event that these automated systems are out of operation, data is manually recorded and entered into the electronic data capture system as soon as possible. Electronic records are backed up on a weekly basis and stored in a secure location. These records are kept and maintained for a period of at least six years and support the submission of monthly waste and resource contribution reports to the NSW EPA.

1.4.10 Delivery of waste and product collection

1.4.10.1 Internal traffic flows

Stage 1: Initial throughput increase

Stage 1 would not result in any changes to the internal traffic flows to the existing conditions and is summarised as follows:

- All vehicles would enter the Eastern Creek REP via the entrance on Kangaroo Avenue and weigh in over the tidal weighbridge system
- Vehicles would travel along the main access road on southern boundary of the Proposal Site
- Once vehicles reach the intersection adjacent to MPC2 they would be directed to one of the four waste management infrastructure areas within the Eastern Creek REP (landfill, MPC1, MPC2 or the SMA)

- Vehicles manoeuvre within the respective resource recovery areas to tip or collect product
- Vehicles would then exit the Eastern Creek REP by traversing DADI Drive towards the Kangaroo Avenue exit, weighing back out over the tidal weighbridge system and making a right-turn exit movement.

Existing inbound vehicle movements are shown in Figure 1-5.

Stage 2: Internal site optimisation

Stage 2 of the Proposal would include the construction and operation of a connection to the Honeycomb Drive extension. Stage 2 internal traffic flows are shown in Figure 1-6 and summarised as follows:

- All vehicles would enter the Eastern Creek REP via the entrance on Kangaroo Avenue and weigh in over the tidal weighbridge system
- All other vehicles would travel along the main access road on southern boundary of the Proposal Site
- Once vehicles reach the intersection adjacent to MPC2 they would be directed to one of the four waste management infrastructure areas within the Eastern Creek REP (landfill, MPC1, MPC2 or the SMA)
- Vehicles manoeuvre within the respective resource recovery areas to tip or collect product
- Vehicles would then exit the Eastern Creek REP by traversing the western edge of MPC2 towards the Honeycomb Drive exit, weighing back out over the tidal weighbridge system and making a left-turn exit movement (until Archbold Road is constructed).

Stage 3: Installation of supporting infrastructure

Stage 3 of the Proposal would include the construction and operation of the Site Workshop and Maintenance and Manufacturing Workshop. Stage 3 internal traffic flows are shown in Figure 1-6 and summarised as follows:

- All vehicles would enter the Eastern Creek REP via the entrance on Kangaroo Avenue and weigh in over the tidal weighbridge system
- Maintenance and Manufacturing Workshop vehicles would enter and exit from the existing site entrance on Kangaroo Avenue via a new a new access connection within the Proposal Site
- All other vehicles would travel along the main access road on southern boundary of the Proposal Site
- Once vehicles reach the intersection adjacent to MPC2 they would be directed to one of the four waste management infrastructure areas within the Eastern Creek REP (landfill, MPC1, MPC2 or the SMA)
- Vehicles manoeuvre within the respective resource recovery areas to tip or collect product
- Vehicles would then exit the Eastern Creek REP by traversing the western edge of MPC2 towards the Honeycomb Drive exit, weighing back out over the tidal weighbridge system and making a left-turn exit movement (until Archbold Road is constructed)
- Maintenance and Manufacturing Workshop vehicles would exist via the existing entrance on Kangaroo Valley.

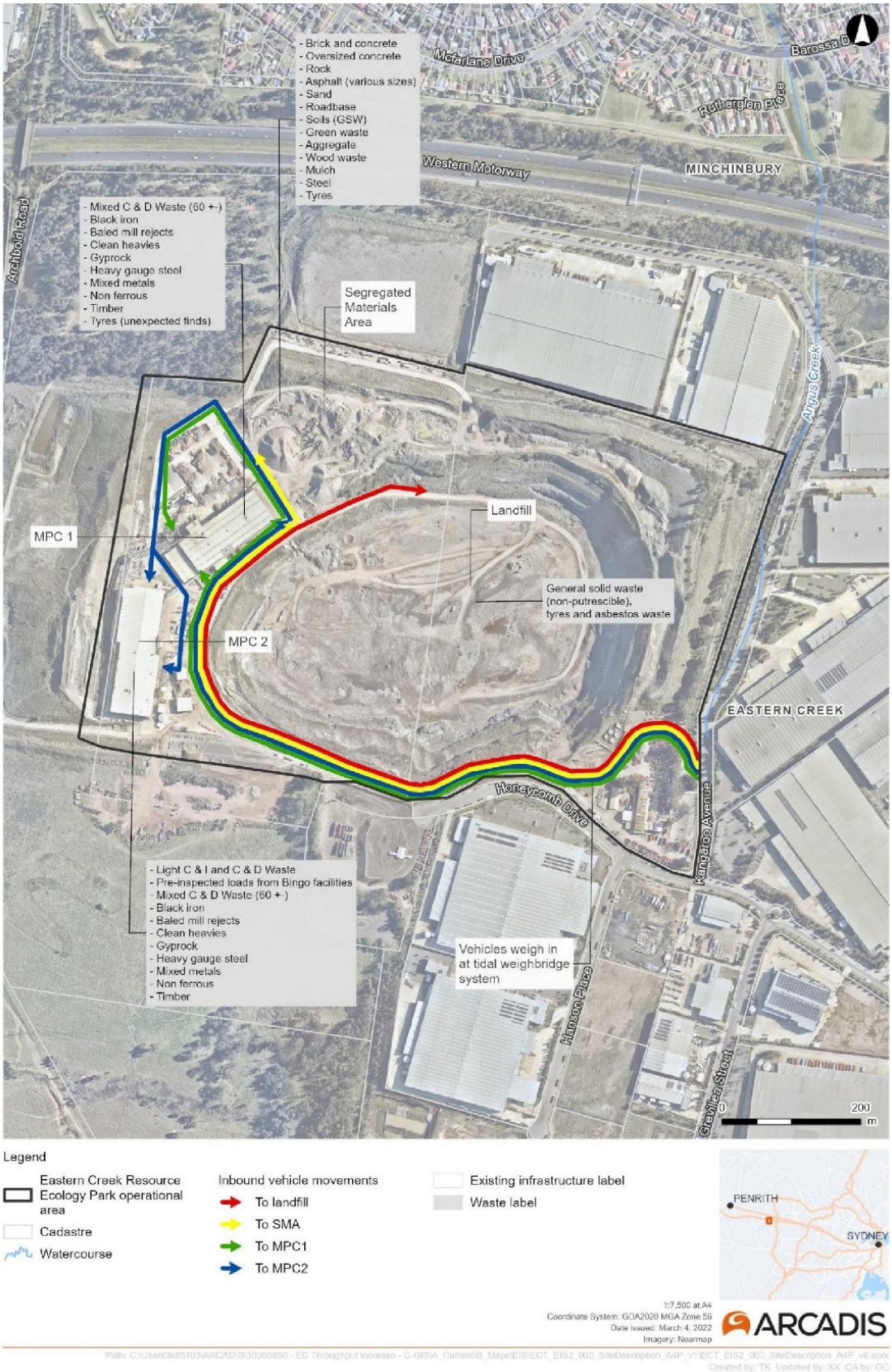


Figure 1-5 Inbound vehicle movements

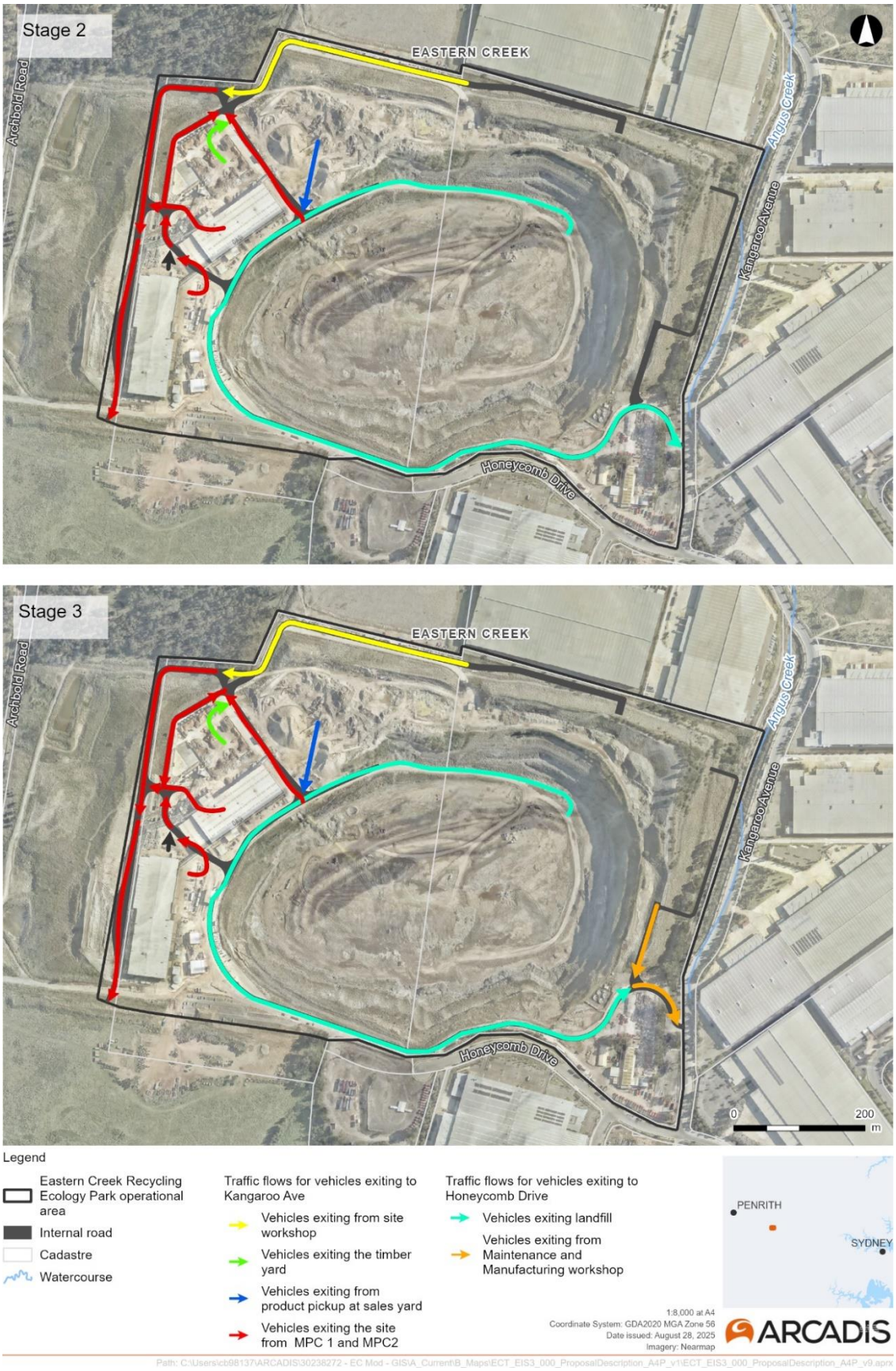


Figure 1-6 Outbound vehicle movements for Stage 2 and Stage 3 operations

1.4.10.2 Vehicle movements

The Proposal would result in an increase in the daily movements at the Eastern Creek REP. The anticipated composition of waste drop off vehicles is outlined in Table 1-9. It is noted that there may be fluctuations in daily movements by truck type and the below is indicative only.

Table 1-9 Indicative inbound vehicle breakdown with the Proposal

Vehicle type	Average capacity (t)	Indicative daily movements (two-way)
Stage 1		
Walking floor	20	35
Heavy (e.g. Truck and dogs)	32	15
Medium	4	53
Total		**103**
Stage 2		
Walking floor	20	32
Heavy (e.g. Truck and dogs)	32	14
Medium	4	47
Total		**93**
Stage 1 + Stage 2		
Walking floor	20	67
Heavy (e.g. Truck and dogs)	32	29
Medium	4	100
Total		**196**

The increase of processing within MPC2 would result in an increase in product collection vehicle entering the Eastern Creek REP (refer Table 1-10).

Table 1-10 Indicative outbound vehicle breakdown with the Proposal

Vehicle type	Average capacity (t)	Indicative daily movements (two-way)
Stage 1		
Walking floor	20	24
Heavy (e.g. Truck and dogs)	32	22
Medium	-	-
Total		**46**

Vehicle type	Average capacity (t)	Indicative daily movements (two-way)
Stage 2		
Walking floor	20	21
Heavy (e.g. Truck and dogs)	32	20
Medium	-	-
Total		**41**
Stage 1 + Stage 2		
Walking floor	20	45
Heavy (e.g. Truck and dogs)	32	42
Medium	-	-
Total		**87**

1.4.10.3 Light vehicles

The Proposal would increase the number of on site personnel working at Eastern Creek REP. As noted in Section 1.4.11 an additional 70 FTE would be employed at Eastern Creek REP as a result of the Proposal. The allocation of operational staff across the various resource recovery facilities, Site Workshop and Maintenance and Manufacturing Workshop due to the Proposal is presented in Table 1-11.

Table 1-11 Operational staff with the Proposal

Facility/ Activity	No. of Employees					
	Stage 1		Stage 2		Stage 3	
	Day Shift	Night Shift	Day Shift	Night Shift	Day Shift	Night Shift
MPC1 and MPC2	72	61	77	66	77	66
Landfill	12	2	12	2	12	2
Crushing and SMA	16	0	16	0	16	0
Site Management	6	0	6	0	6	0
Site Office	25	0	25	0	25	0
Workshop & Maintenance	0	0	0	0	50	0
Sub-total	**131**	**63**	**136**	**68**	**186**	**68**
Total	**194**		**204**		**254**	

1.4.11 Operating hours

No changes are proposed to operational hours as a result of the Proposal (provided in Table 1-12 for reference). The proposed Site Workshop and Maintenance and Manufacturing Workshop would operate 12 hours per day between 6am and 6pm, consistent within existing approved hours of operation for the Eastern Creek REP.

Table 1-12 Operating hours

Activity	Day	Time
Construction	Monday – Friday	7:00am to 6:00pm
	Saturday	8:00am to 4:00pm
	Sunday and Public Holidays	Nil
MPC – operation, waste receival, chute use and maintenance	Monday – Friday	24 hours
	Saturday	
	Sunday and Public Holidays	
SMA – crushing and screening	Monday – Friday	6:00am to 6:00pm
	Saturday	8:00am to 4:00pm
	Sunday and Public Holidays	
SMA – receipt of segregated materials	Monday – Friday	24 hours
	Saturday	8:00am to 4:00pm
	Sunday and Public Holidays	
Landfill – truck deliveries	Monday – Friday	5:00am to 9:00pm
	Saturday	
	Sunday and Public Holidays	
Site Workshop and Maintenance and Manufacturing Workshop	Monday – Friday	6:00am to 6:00pm
	Saturday	5:00am to 9:00pm
	Sunday and Public Holidays	

1.4.12 Operational capacity

The Proposal would utilise spare operational capacity currently latent within the Eastern Creek REP. Calculations for the theoretical capacity of the Eastern Creek REP are based on the current operational area (i.e., Lot 1 and part Lot 2 DP1145808 and Lot 2 DP1247691). Modification 9 would expand the operational area of the Eastern Creek REP further increasing the latent capacity and providing additional space for the proposed throughput. In addition, changes to internal road network and supporting infrastructure would increase the Eastern Creek REP site-wide capacity. Changes to the operational capacity of each of the individual components of Eastern Creek REP as a result of the Proposal include:

- A small increase in residual waste to landfill is expected however, no changes to the operational capacity of the landfill are envisaged as the one Mtpa landfill limit excludes residual waste entering the landfill via the chute

- Minimal changes are anticipated to the operation of MPC1 as a result of the Proposal and no changes to the operational capacity of MPC1 are therefore envisaged
- The Proposal would increase the throughput of waste being processed by MPC2. It is envisaged that the majority of the throughput from both Stage 1 and Stage 2 (950,000 tpa) would be directed to MPC2, and as such the waste throughput within MCP2 would equate to approximately 1.1 M – 1.5 Mtpa (assuming some waste currently directed to MPC1 may also be processed within MPC2). MPC2 has a theoretical processing capacity of up to up to 7,000 t a day
- Minimal changes are anticipated to the operation of the SMA as a result of the Proposal and no changes to the operational capacity of SMA are therefore envisaged.

Each of the individual components of Eastern Creek REP has a theoretical operational capacity in excess of current approved throughput, indicating there is substantial additional capacity within the Eastern Creek REP.

1.4.13 Workforce

It is anticipated that the increase in throughput associated with the Proposal would require up to an additional 20 FTE employees within the MPC1 and MPC2 facilities and 50 FTE employees for the Maintenance and Manufacturing Workshop taking the total number of employees across the Eastern Creek REP to 254 (with up to 160 people on site at one time). The majority of the Eastern Creek REP workforce would access the site via standalone light vehicle access from Honeycomb Drive, separate from heavy vehicle traffic accessing the site via Kangaroo Avenue.

Employees would generally access Eastern Creek REP via two shifts, generally between 5am and 3pm and 3pm to 1am which may alter from time to time and based on operational and market conditions. Additional employees may occasionally be used to cover absences or leave.

The operational workforce at the Eastern Creek REP, including the Proposal, is outlined in Table 1-13.

Table 1-13 Proposed workforce

Component	Staff (FTE)	
	Day	Night
MPC1 and MPC2	77	66
Landfill	12	2
Crushing and SMA	16	0
Maintenance and Manufacturing Workshop	25	25
Site management	6	0
Site office	25	0
Total	**161**	**93**

1.4.14 Water, landfill gas and leachate management

1.4.14.1 Water

Section 1.2.6 describes the additional water management infrastructure that would be installed as part of the Proposal. Stormwater runoff within the Proposal Site is proposed to be collected via a network of stormwater drainage infrastructure, including pits, pipes and table drains. This infrastructure consists of:

- Basin B – to be located near the northeastern corner of the Proposal Site, adjacent to the Upper Angus Creek corridor that runs parallel to Kangaroo Avenue. Basin B will also include a bioretention system, which will be positioned adjacent to the OSD component of the basin such that there would either be no OSD or a shallow OSD depth over the bio-retention system
- Additional to Basin B is the northwest treatment train, which has been assessed under Major Project Application MP06_0139-Mod9 – to replace the existing northern and southern onsite detention basins in the northwestern portion of the Eastern Creek REP.

The objective of the bio-retention system at Basin B is to provide a filtering effect when stormwater runoff flows through a vegetation layer and sand and/or gravel filer media to remove pollutants from the runoff. Bio-retention systems generally consist of an open space containing landscaping of native grasses, shrubs, and trees with an underlying filter media. The exact configuration of the bio-retention system within the proposed OSD basin is subject to confirmation at detailed design.

A new GPT incorporating capacity for removal of hydrocarbons would be installed in the northwest corner of the Proposal site. Details of the GPT, including configuration and sizing, will be confirmed at the subsequent phase of design of the Proposal.

Two new rainwater tanks, one each for the proposed Site Workshop and the proposed Maintenance and Manufacturing Workshop would be installed as part of retain a significant proportion of stormwater that falls on roof areas. Considering tanks would be fitted with first flush devices, it is likely that they would have minimal water quality benefit as the first flush off roof areas generally contain the highest concentration of pollutants. However, rainwater tanks would be required to maximise water reuse opportunities within the Proposal Site.

1.4.14.2 Landfill gas and leachate management.

The Proposal would not result in any changes to landfill gas and leachate management. The Proposal will result in a reduction in the catchment area draining towards the landfill seepage system.

1.4.15 Environmental management and monitoring

Existing monitoring and management would continue to be carried out, and waste received as part of the Proposal would be subject to the existing management plans and practice. In addition, Chapter 7 of the ASR identifies a range of additional environmental management measures that would be implemented for the Proposal.

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