



# Kariong Sand and Soil Supplies

Presentation to Independent Planning Commission  
25<sup>th</sup> October 2021

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# Overview of presentation

- About the applicant and project need
- Characteristics of the site and surrounding landform
- Neighbouring receivers
- Access (including truck movements)
- Stage 1 - Existing approvals
- Overview of the proposed infrastructure / development
- Mitigation measures
  - Air quality
  - Noise and vibration
  - Water and stormwater
  - Traffic
  - Biodiversity (including details on *Melaleuca* cluster)
- Overview of proposed staged increased in operations
- Q&A's





## About the applicant

Kariong Sand and Soil Supplies is owned by family business Davis Earthmoving & Quarrying Pty Ltd (DEQ)

DEQ is a family company operating for more than 50 years, providing earthmoving and recycling services across NSW





## Project need

- The facility is needed as few recycling facilities exist in the Central Coast
- Recycling rates are stubbornly low in the Central Coast and Hunter – only 44%
- NSW Government target of 80% recycling for household and business, and construction waste by 2030
- The Hunter and Central Coast has a shortfall of more than 461,000 tonnes per year of recycling capacity for construction materials and more than 250,000 tonnes per year of household waste to reach recycling targets
- Did you know?
  - Recycling creates 9.2 jobs on average for 10,000 tonnes of waste
  - Landfill creates only 2.8 jobs for every 10,000 tonnes of waste

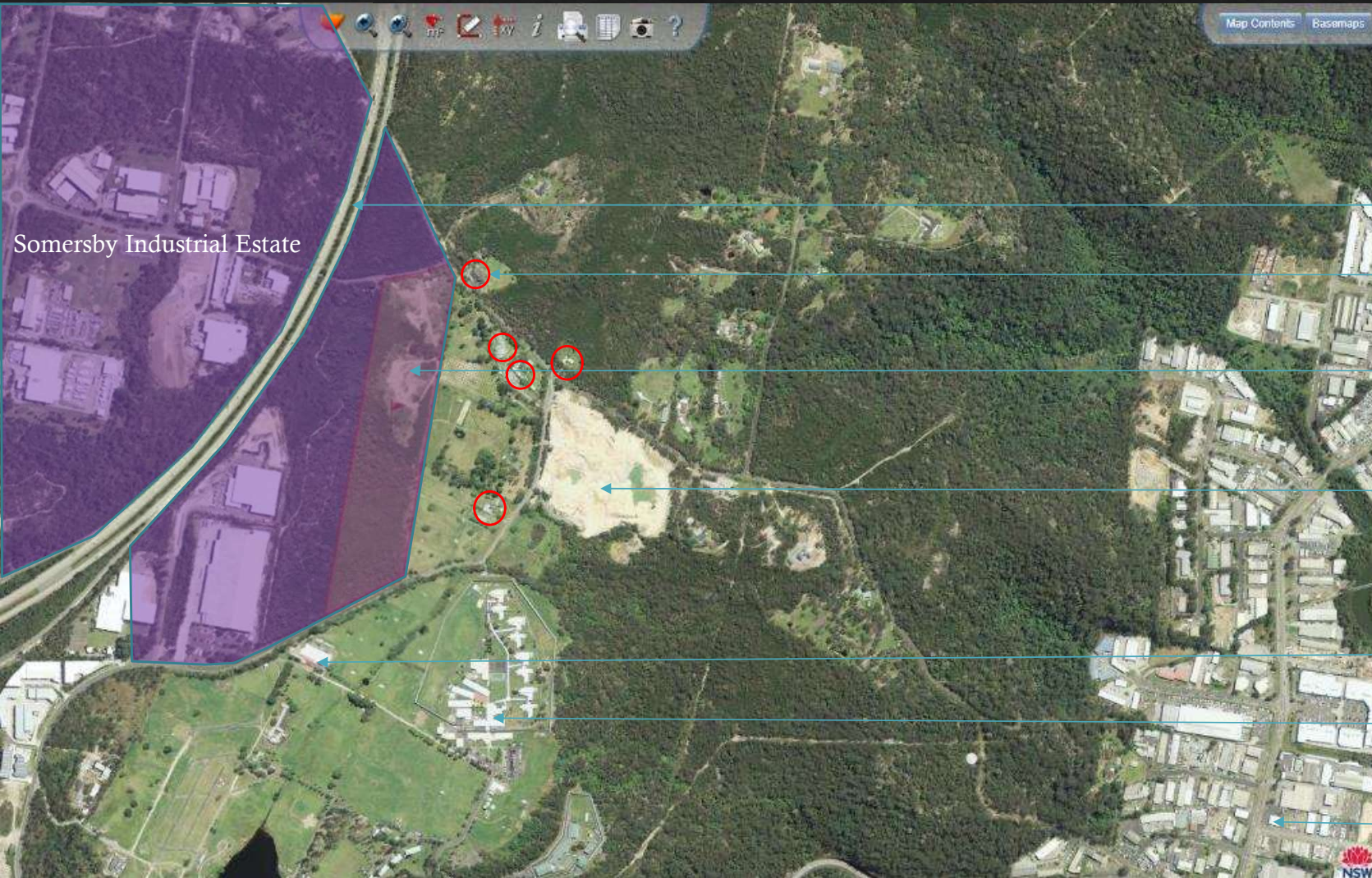


# Characteristics of site and surrounding landform

- Located on eastern side of the Somersby Industrial Estate
- Zoned IN1 General Industrial
- Site was approved and used as a sand and metal recycling facility since 1992
- Total site area is 10.8 ha, elongated rectangular lot
- Site is bound by Gindurra Rd (north) and Kangoo Rd (south)
- 6.05ha of lot to be developed; rear 4.75ha to remain as a bushland buffer
- Site has a gentle fall of ~6m from Gindurra Rd to the rear of the area to be developed (~400m into site)
- The site is surrounded by bushland to the south (on lot), rural residential properties to the east and north, industrial land (vacant to the north and west)



# The location



M1 Pacific Motorway

Residential receptors  
(red circles)

90 Gindurra Rd  
(development site –  
northern side only)

Gosford Quarry

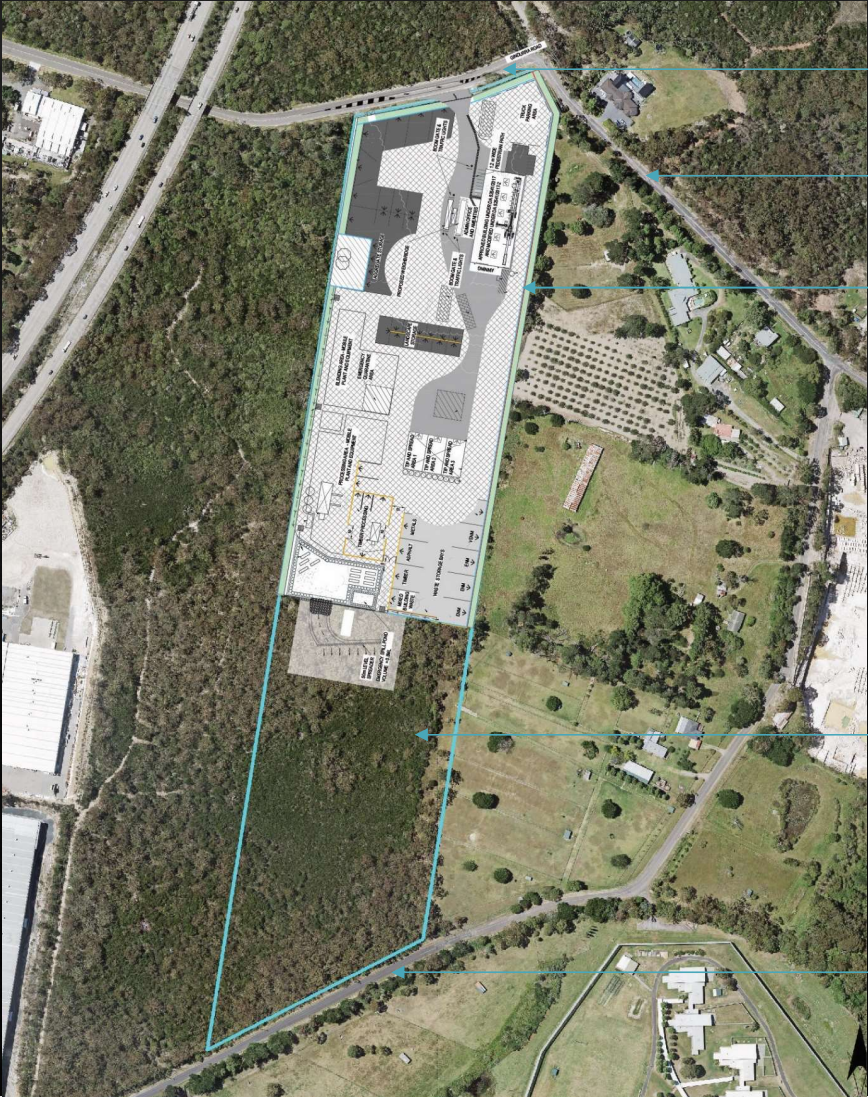
Riding School for  
the Disabled

Kariong Correctional  
Centre

West Gosford  
Industrial Area



# 90 Gindurra Rd – Proposal area



Gindurra Rd

Debenham Rd South

Overlay of proposed development on the lot

Bushland to be retained

Kangoo Rd



# 90 Gindurra Rd – View to the south (current)





# Bushland at rear of site -View north from Kangoo Rd





A virtual tour  
(7 minutes)





# Location of neighbouring receivers and other sensitive locations



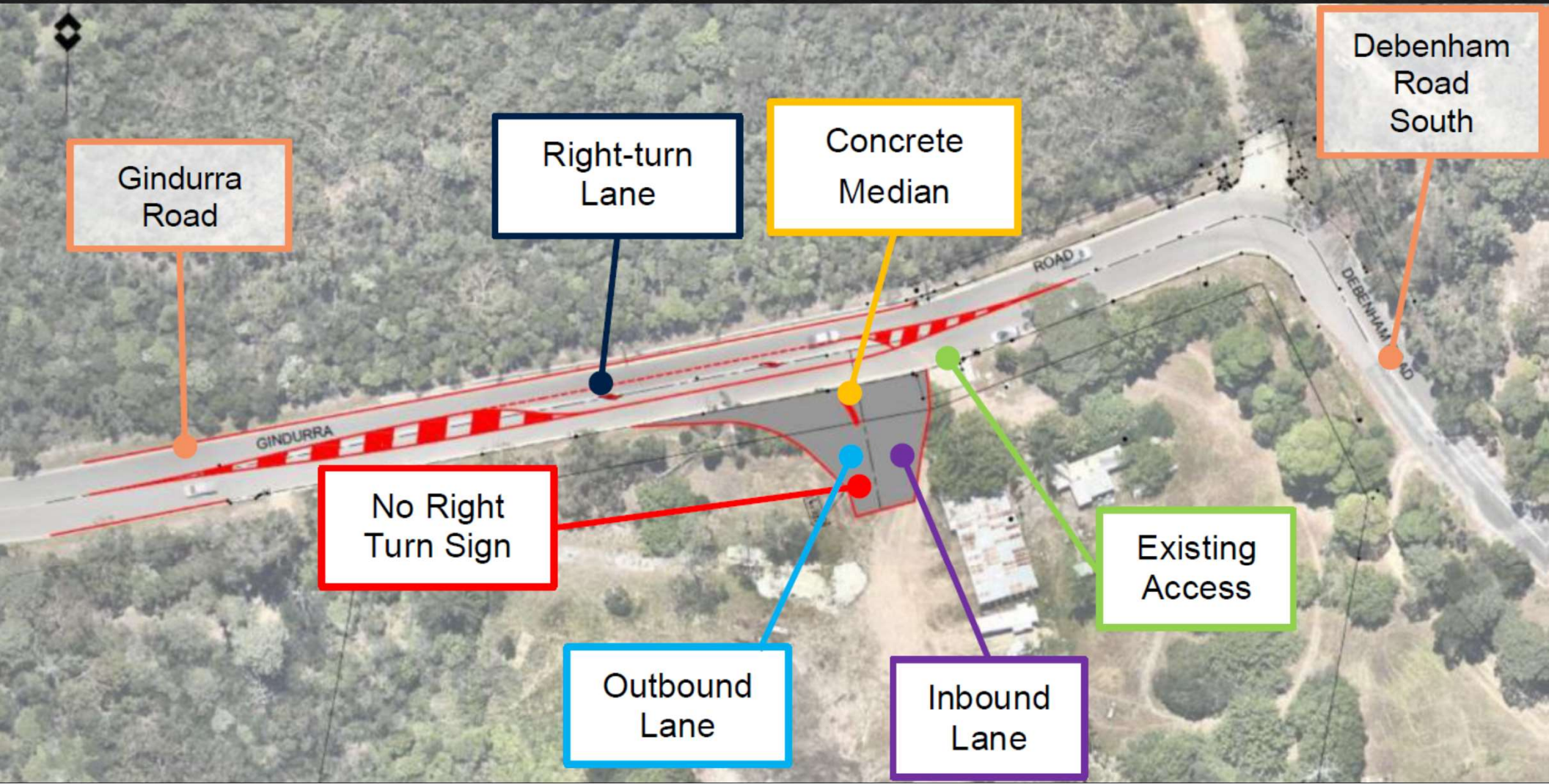


## Access and truck movements

- The site is accessed via Gindurra Rd only
- Inbound and outbound lanes constructed as part of Stage 1 approval from Central Coast Council
- Inbound and outbound lanes to be separated by a concrete median to prevent trucks turning right onto Gindurra Rd then local roads near dwellings
- Driveway designed for good sight distance when exiting the site
- Recessed site gate to enable holding of a B-double within site when gate is closed
- Right turn lane to be provided from Gindurra Rd into site to enable smooth traffic flow on Gindurra Rd
- Vehicles to use westbound Gindurra Rd, Wisemans Ferry Rd then the regional road network **only**
- Applicant has obtained a NHVR permit for B-double access to site
- 164 average movements per day (82 in and 82 out): 20 staff vehicles, 77 small trucks (12 tonne tippers), 12 small landscaping trucks, 41 truck&dog/semi trucks and 14 B-doubles.

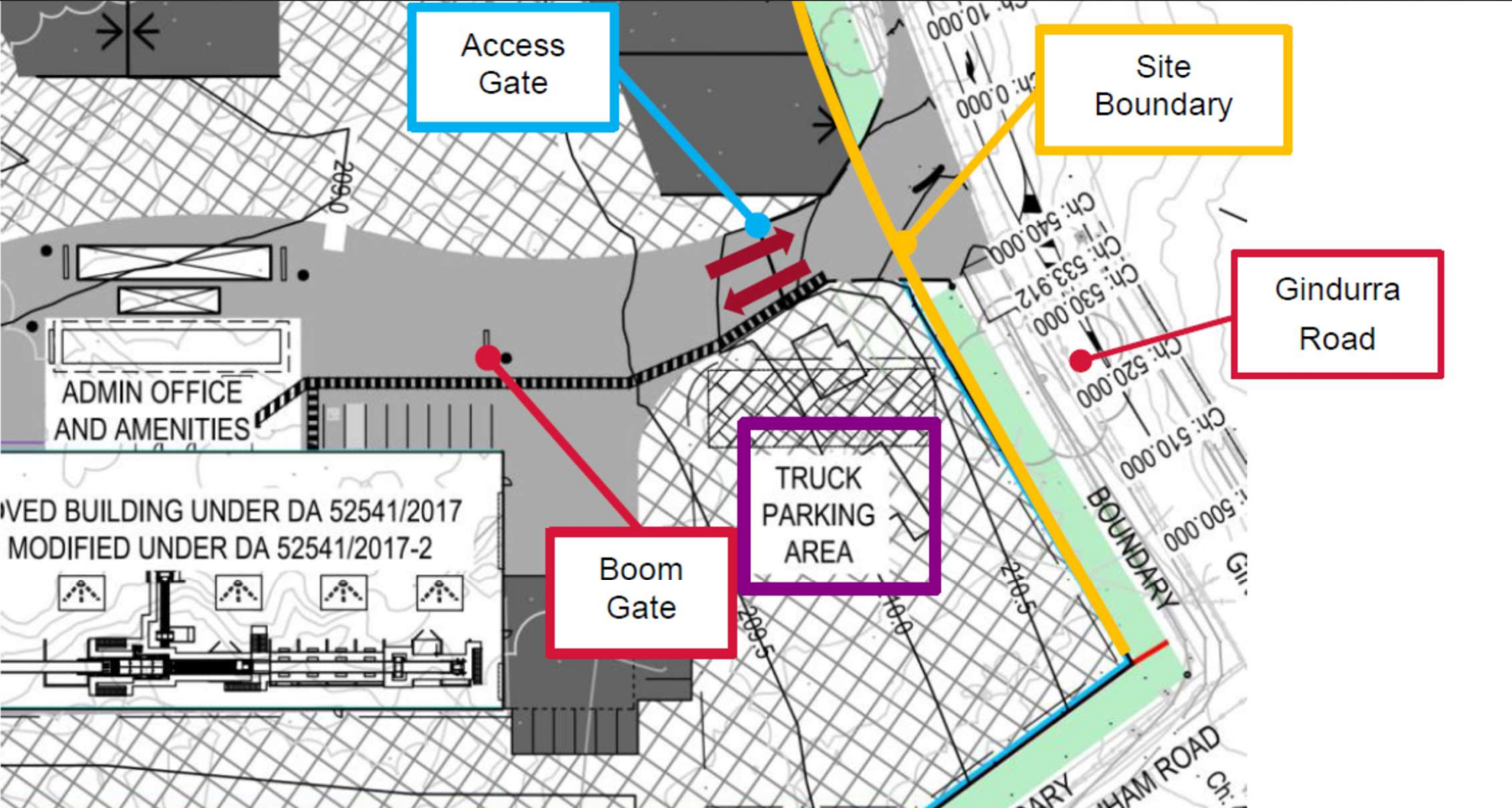


# Proposed site access and Gindurra Rd treatment





# Proposed site access arrangements





## Summary of existing approvals

- The site was originally approved under DA 15337 on 28/02/1992 as a 'Sand and Metal Recycling Facility'.
- On 17/11/17, the owner sought development approval for **Stage 1** of the development works under DA52541/2017 from Central Coast Council. This development consent provides permission for construction of a new shed with offices & amenities & driveway.
- The building design and location was modified and approved by Central Coast Council on 21/09/2018 under DA52541/2017.2. Under this modified DA, the building was moved 18 m west of the original proposed location under DA52541/2017, and the front awning has been enclosed.
- The proposed development, which is the focus of this SSD application, complements Stage 1 of the development, and is referred to as **Stage 2**.

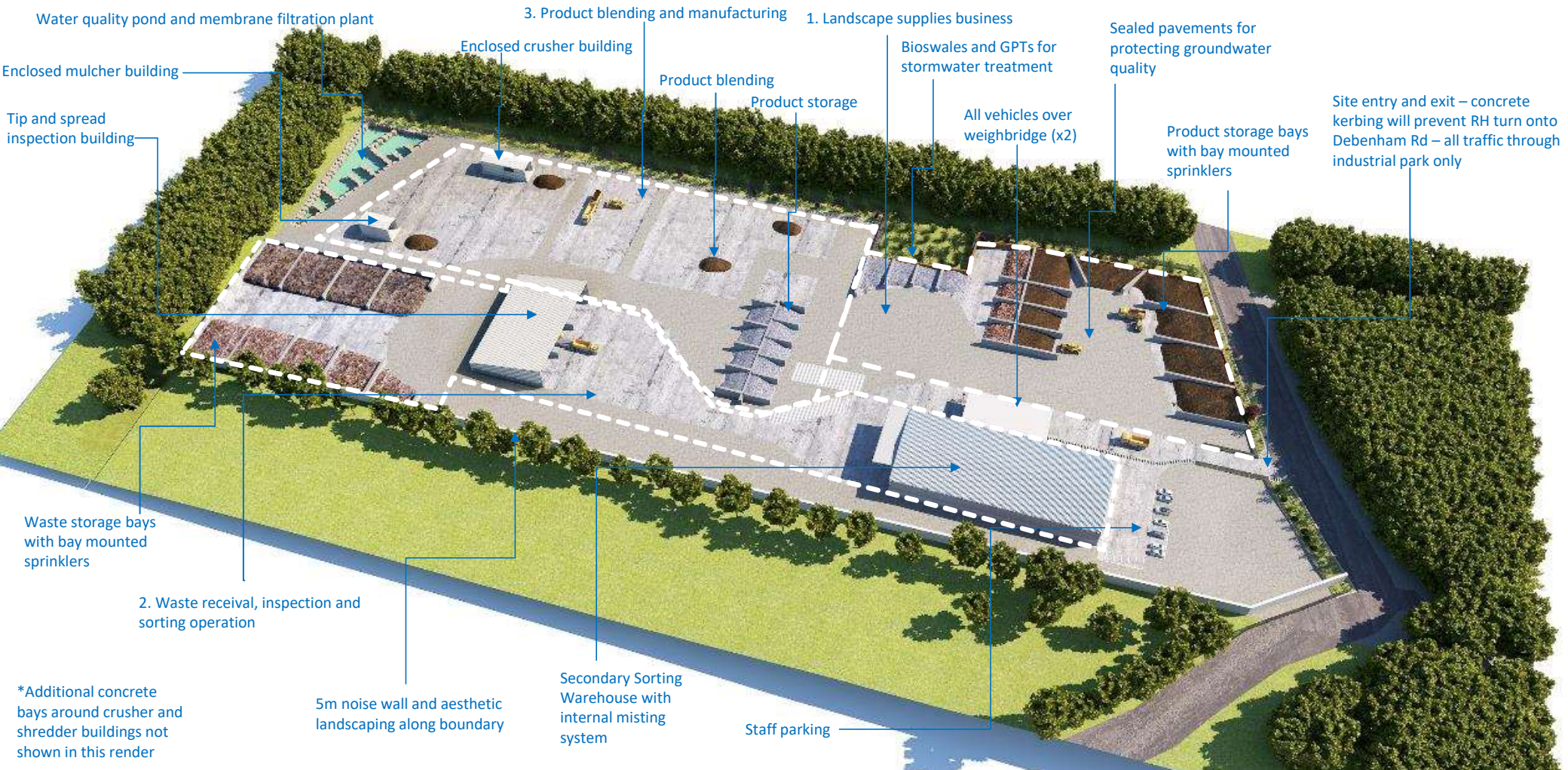


Proposed development – view from Gindurra Rd





# Proposed development – aerial view to west – how it will operate



Water quality pond and membrane filtration plant

3. Product blending and manufacturing

1. Landscape supplies business

Enclosed mulcher building

Enclosed crusher building

Product blending

Bioswales and GPTs for stormwater treatment

Sealed pavements for protecting groundwater quality

Tip and spread inspection building

Product storage

All vehicles over weighbridge (x2)

Product storage bays with bay mounted sprinklers

Site entry and exit – concrete kerbing will prevent RH turn onto Debenham Rd – all traffic through industrial park only

Waste storage bays with bay mounted sprinklers

2. Waste reception, inspection and sorting operation

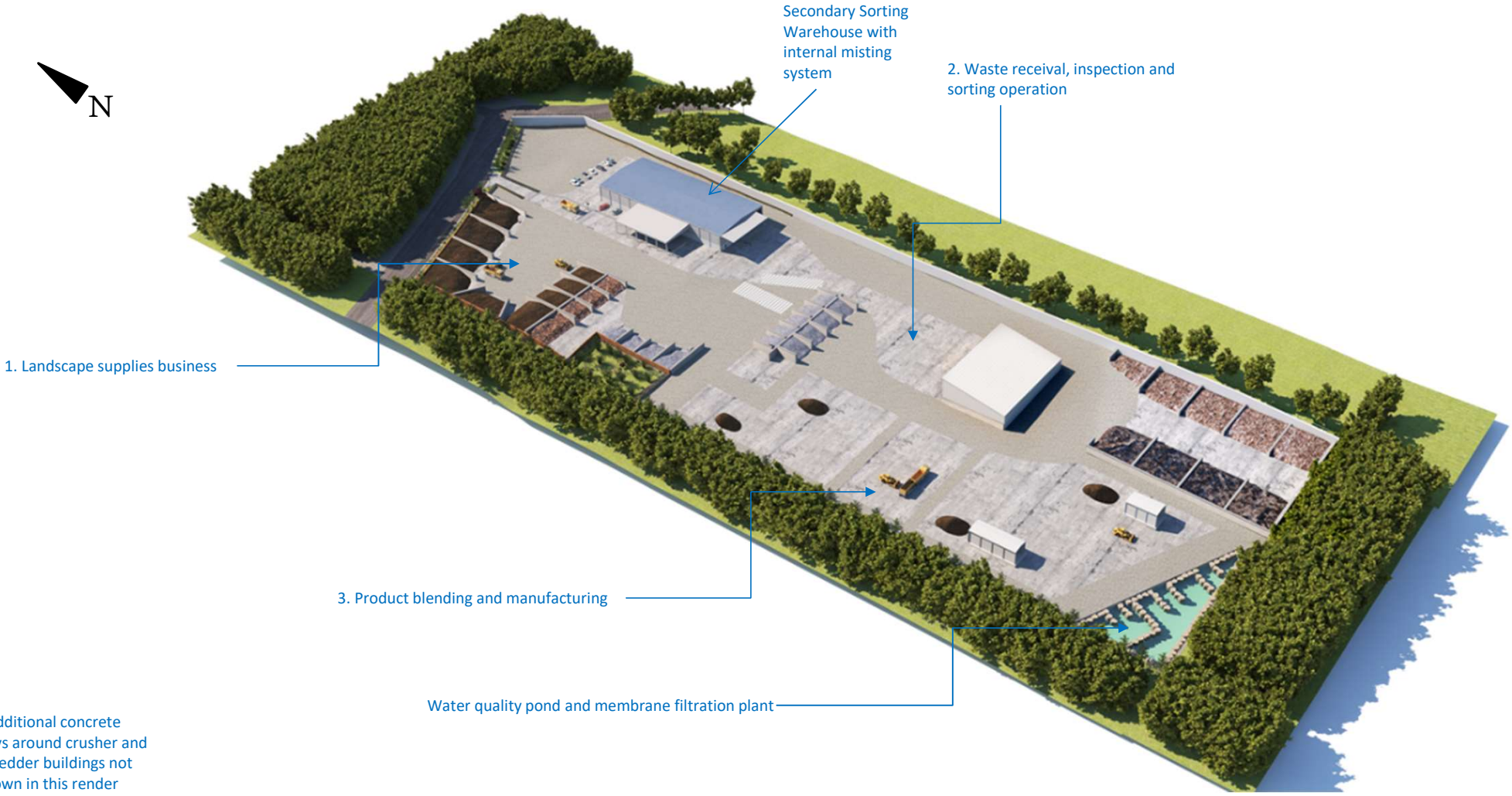
Secondary Sorting Warehouse with internal misting system

5m noise wall and aesthetic landscaping along boundary

Staff parking



# Proposed development – aerial view to east\*



\*Additional concrete bays around crusher and shredder buildings not shown in this render



# Quality recycled building & landscaping supplies that will be produced:



10mm Crushed Concrete Aggregate



20mm Crushed Concrete Aggregate



30mm Crushed Concrete Aggregate



Oversize Crushed Concrete Aggregate



Crushed Terracotta Tile



Crusher Sand / Bedding Sand



Recycled Road Base



Crushed Asphalt



Crushed Sandstone



Mulch

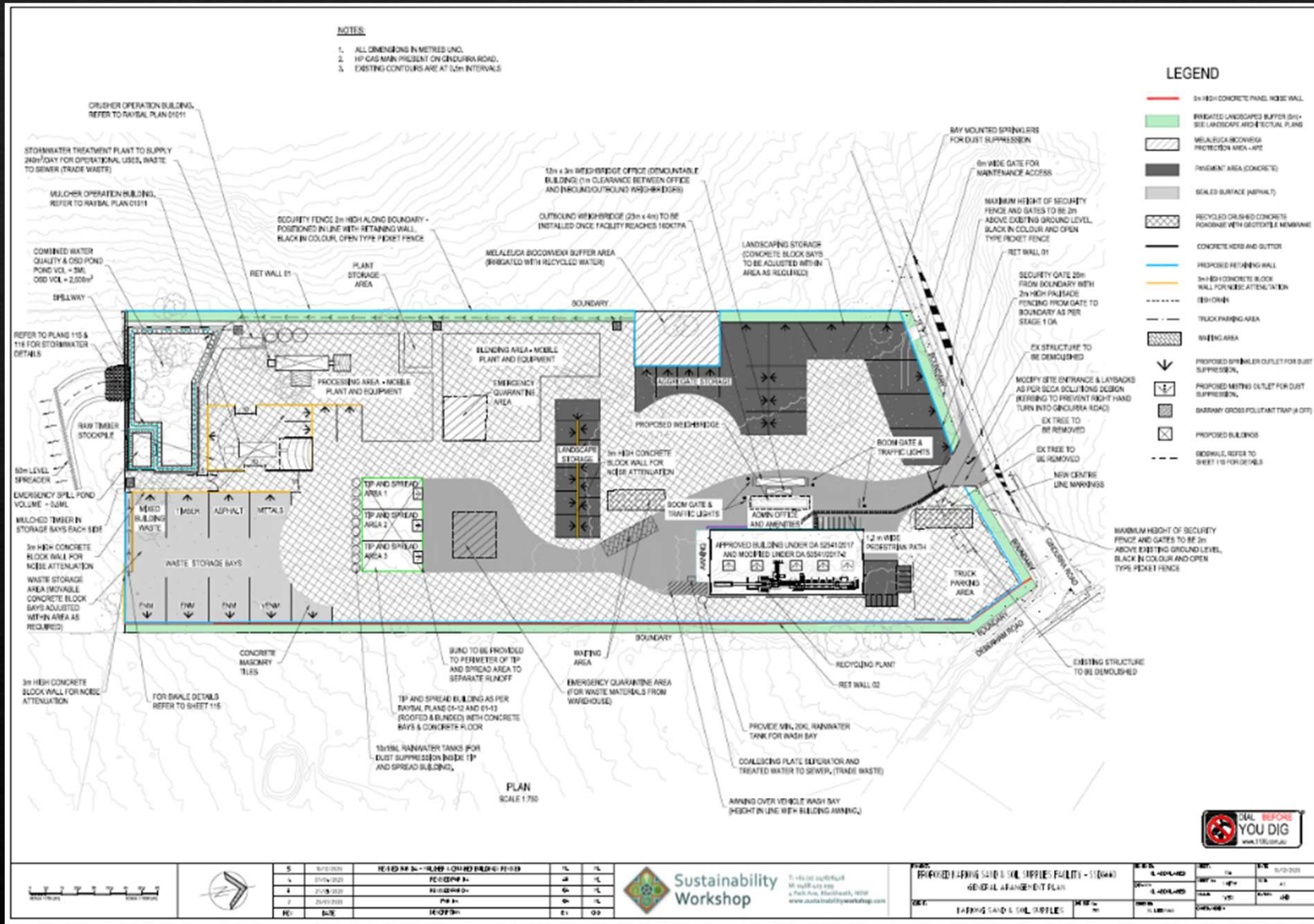


# Key operational features & mitigation measures

- Maximum 200,000 tpa
- Construction and Demolition (C&D) waste only
- All loads enter and exit in forward direction
- All vehicles weighed on inbound and outbound weighbridge
- Commercial drop-off vehicles only
- Commercial product sales only
- All processing occurs in enclosed buildings
- Semi-enclosed tip and spread building
- Waste and products stored in designated concrete bunkers
- Comprehensive environmental protection measures



# Site layout plan







## Air Quality – Dust and Odour

- Sealed surfaces
- All processing activities in enclosed buildings
- Mobile water tank to keep roads damp
- Dust sprays on storage bunkers
- Misting systems inside buildings and Tip and spread building
- No putrescible waste received at the site
- No asbestos received at the site
- Drivers instructed to cover loads
- On-site weather station
- Continuous air quality monitoring





# Noise and Vibration

- All processing activities in enclosed buildings
- 5 m noise barrier along eastern boundary
- Concrete bunker walls around site attenuate noise
- Operational hours limited to normal working hours
- Ongoing noise monitoring





# Water and Stormwater

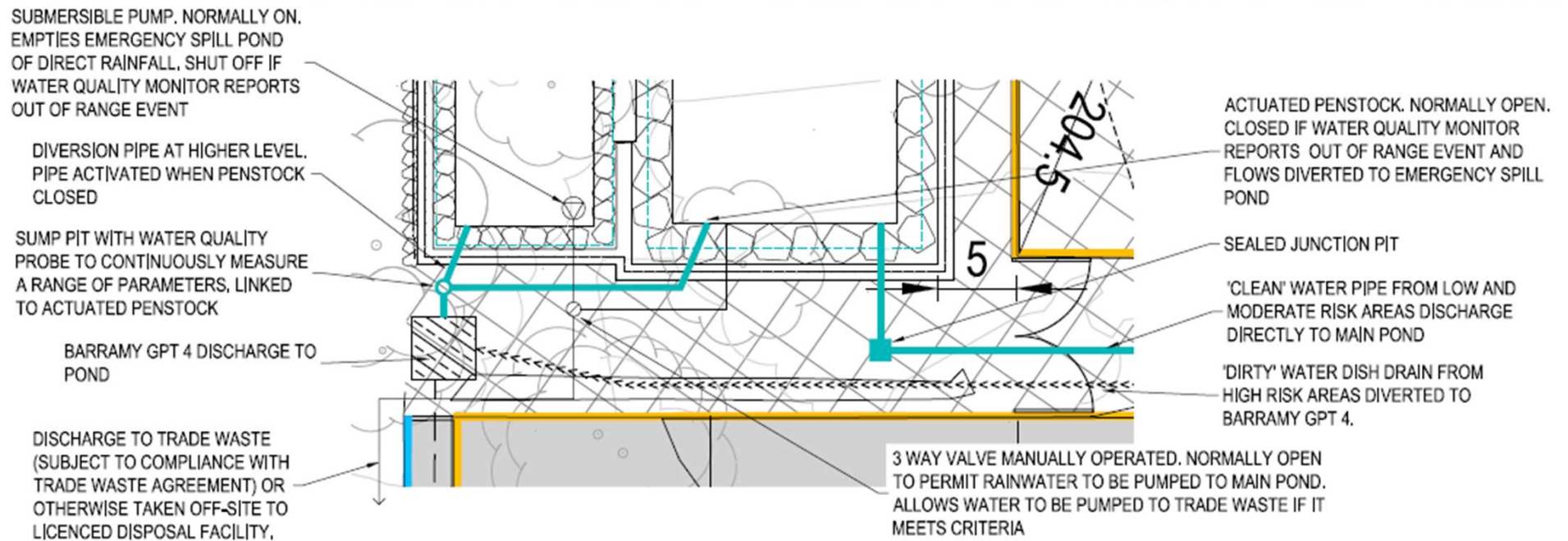
- Sealed surfaces
- All processing activities in enclosed buildings
- Catchment system to separate high and low risk stormwater
- Onsite Detention Basin (OSD)
- Emergency spill pond
- Gross Pollutant Traps (GPTs)
- Grass swales
- Membrane filtration plant for re-using stormwater
- Intermittent treated stormwater release to ensure minimal overflow
- Rain water captured from Secondary Sorting Warehouse
- Water from truck wash disposed to sewer
- Ongoing water quality monitoring







# Stormwater plan - inset



INSET  
SCALE 1:250





# Traffic

- Sealed surfaces
- Minor impacts on traffic, no more than 82 cars and trucks using the site on a daily basis between 7am and 5pm; peak period is 10-11am
- Gindurra Rd is an approved B-double route – only 7 B-doubles per day at max capacity
- All parking for the development will be provided on site. No on-street parking is required for staff or visitors.
- All vehicles enter and exit in forward direction
- New right hand turn lane for entering from Gindurra Rd
- Left hand turn only on exiting the site
- Boom gates to control on-site traffic flow
- Space for on-site manoeuvring
- Space for on-site queuing (if necessary)







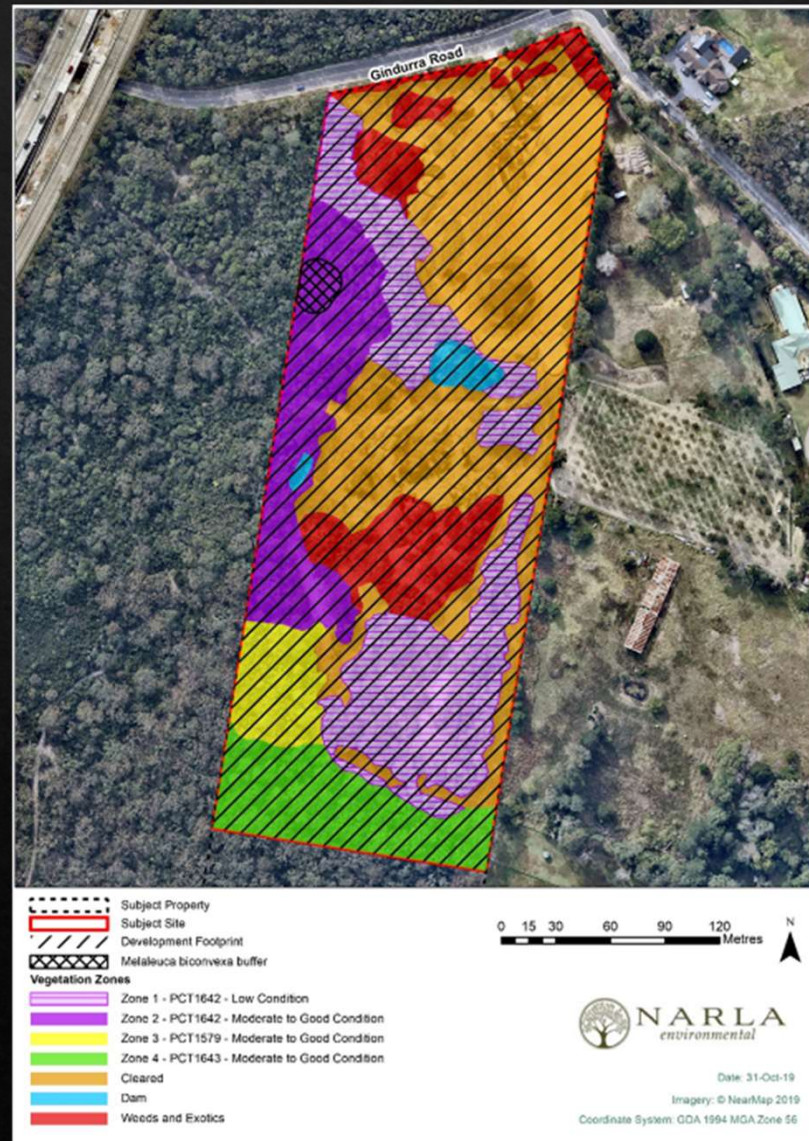


# Biodiversity

- Conservation of *Melaleuca biconvexa* stand on western boundary
- Vegetated buffer around + irrigation with water from membrane filtration plant to mimic natural wetting / drying cycles
- Preservation of back half of the lot, which totals 4.75 ha and contains habitat for *Prostanthera junonis* and *Hibbertia procumbens*
- The results of the FBA assessment found that:
  - 103 ecosystem (BioBanking) credits are required
  - 28 Eastern Pygmy-Possum species (BioBanking) credits are required.
- Ecologist to be appointed to conduct pre-clearing site survey and over see clearing operations.

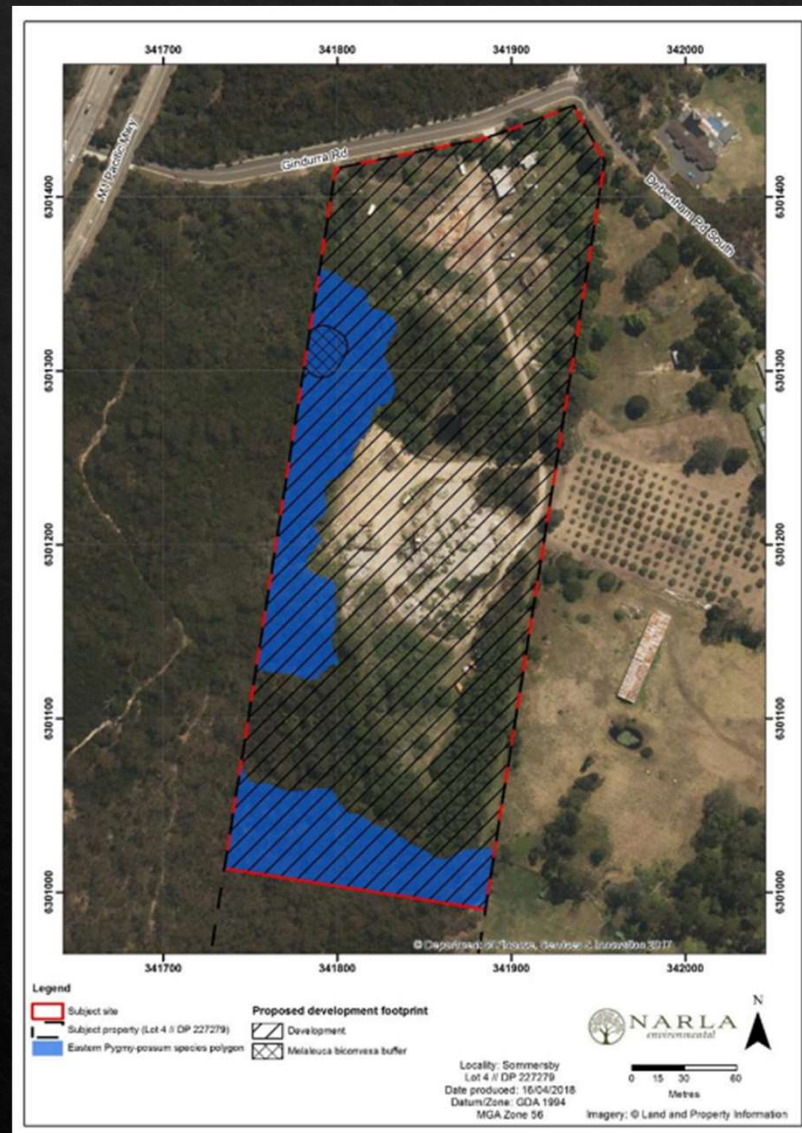


Biodiversity –  
Development footprint  
and native vegetation  
extent (including  
Melaleuca conservation  
area)





# Biodiversity – Eastern Pygmy-possum species polygon





# Additional controls implemented between 1<sup>st</sup> & 2<sup>nd</sup> EIS exhibition

- Additional enclosures around Crusher building to control dust emissions.
- Additional enclosures around Mulcher building to control dust emissions.
- Additional concrete walls on-site for further noise attenuation.
- Installation of weather station on-site.
- The gate at the site entrance has been recessed 26m to allow a 26m vehicle to wait at the site entrance without impacting traffic along Gindurra Rd.
- Upgrades to the stormwater treatment train, increased the size of the OSD pond, emergency spill pond and membrane filtration plant to maximise stormwater reuse.
- Staged operational increases, with each increase in annual throughput dependent on validation of environmental performance.
- Commitment to continuous monitoring of noise and air quality.



# Staged increase in operations – Verifying the performance of the development

## Stage I - Commence operations with a limit of 100,000 tpa

- Fully construct site as per plans (except for second weighbridge)
- DPIE approval of management plans
- Undertake Post Commissioning Air Quality Monitoring, Noise Monitoring, Traffic Monitoring and Water Monitoring Reports (within 3 months) to validate modelling
- Update environmental controls and contingency measures (if needed)
- Submit to DPIE for approval

## Stage II - Scale up to 150,000 tpa

- Prior to scale up approval:
  - Install 2<sup>nd</sup> weighbridge
  - Prepare Verification reports for Air quality, Noise, Traffic and Water on the environmental performance of the development
  - DPIE approval of management plans (addressing any additional mitigation measures)
- Post scale up approval:
  - Undertake Post Commissioning Air Quality Monitoring, Noise Monitoring, Traffic Monitoring and Water Monitoring Reports (within 3 months) to validate modelling
  - Update environmental controls and contingency measures (if needed)
  - Submit to DPIE for approval



# Staged increase in operations – Verifying the performance of the development

## Stage III - Scale up to 200,000 tpa

- Prior to scale up approval:
  - Prepare Verification reports for Air quality, Noise, Traffic and Water on the environmental performance of the development
  - DPIE approval of management plans (addressing any additional mitigation measures)
- Post scale up approval:
  - Undertake Post Commissioning Air Quality Monitoring, Noise Monitoring, Traffic Monitoring and Water Monitoring Reports (within 3 months) to validate modelling.
  - Update environmental controls and contingency measures (if needed)
  - Submit to DPIE for approval



# Ongoing monitoring and environmental management commitments

- Operational Environmental Management Plan to include plans for:
  - Water and stormwater
  - Air quality
  - Noise
  - Traffic
  - Waste
  - Biodiversity
  - Aboriginal Cultural Heritage.
- Environmental monitoring:
  - Meteorological station and air quality monitoring (continuous)
  - Noise and vibration (continuous)
  - Traffic counts
  - Water quality (monthly & at overflow events)
  - Waste amounts and type (continuous – every truck)
- Community engagement:
  - Community Consultative Committee
  - Complaints register
  - Website





# Thank you

Contacts:

- Dr Mark Jackson, Jackson Environment and Planning Pty Ltd
- Eric Davis, Davis Earthmoving and Quarrying Pty Ltd