- **<u>Three Mile Hill Waste Facility</u>**

  Three Mile Hill Pty Ltd is seeking development approval for Repurposing Existing Quarry to Waste/Resource Management Facility, Comprising Waste Recovery Facility and Waste Disposal Facility in the Hunter Region.

  In summary, Three Mile Hill proposes:

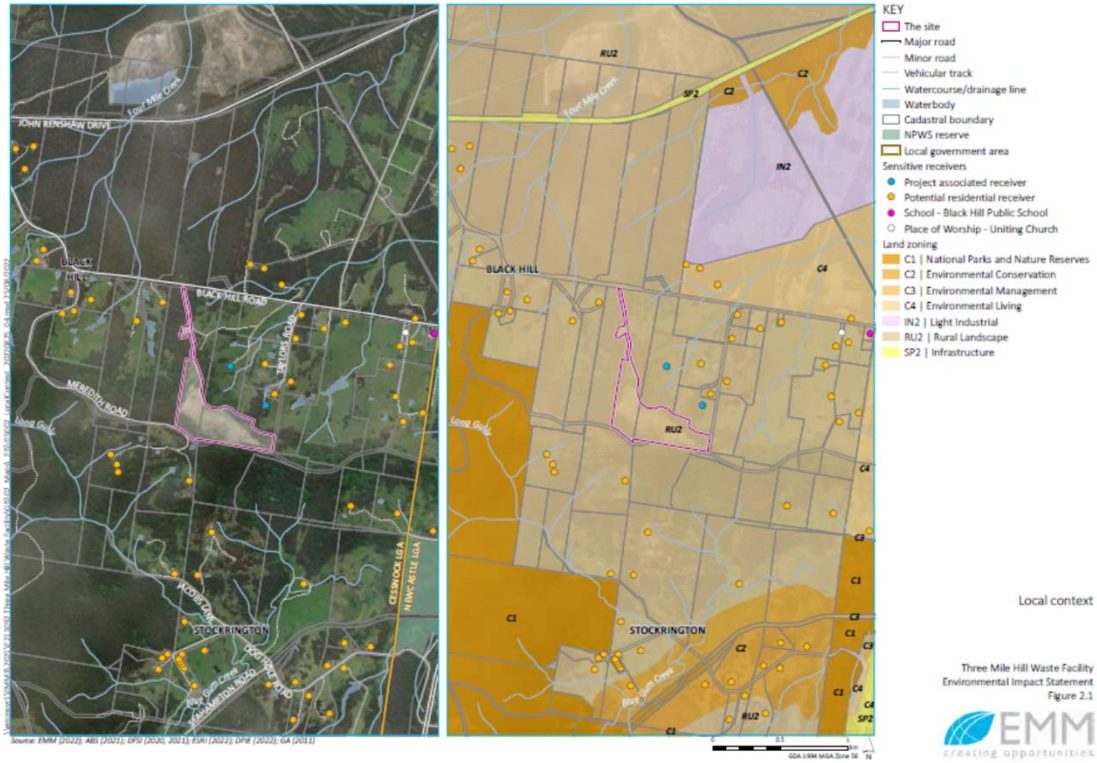
  a resource recovery area that handles of up to 100,000 tonnes per annum (tpa) of general solid waste (non-putrescible); and

  disposal of up to 150,000 tpa of general solid waste (non-putrescible) by landfilling (comprising approximately 25,000 tpa of residual output from the on-site resource recovery facility, plus approximately 125,000 tpa of waste from external sources).

Location: 220 Black Hill Road, Black Hill

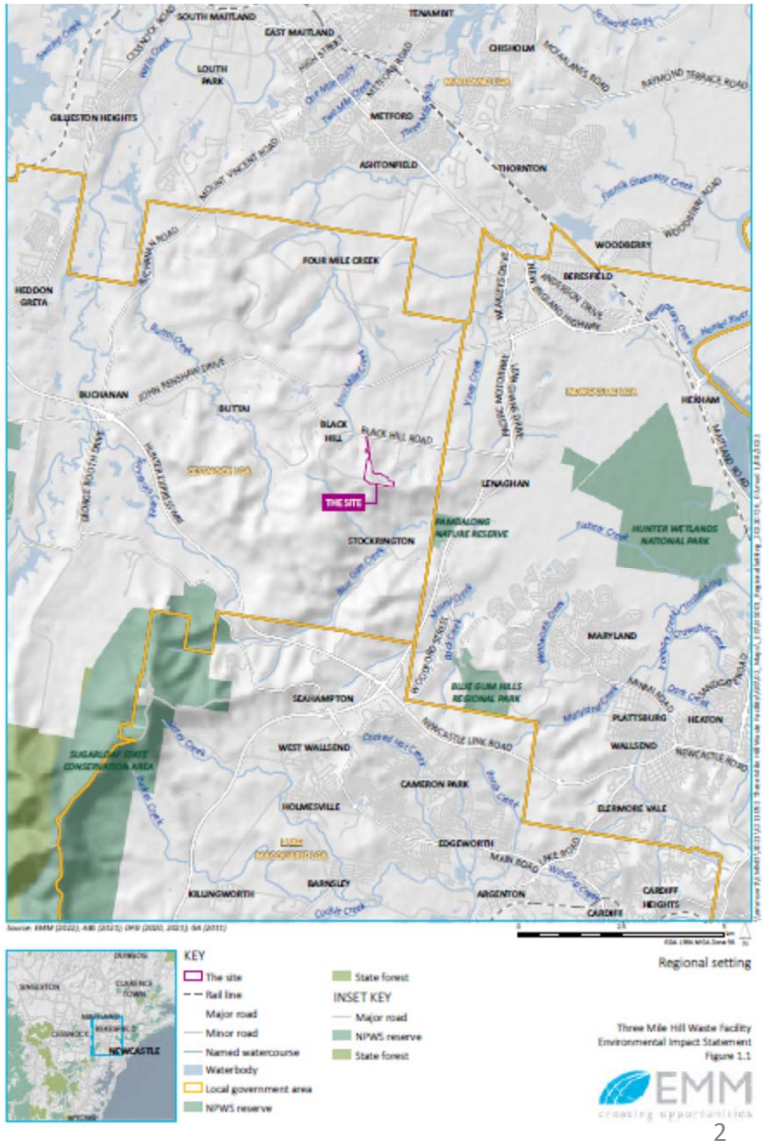
LGA: Cessnock, however as shown close to Newcastle, Lake Macquarie, Maitland

Surrounds: Rural land holdings, close proximity to recently approved Black Hill Employment Zone



Local context

Three Mile Hill Waste Facility
Environmental Impact Statement
Figure 2.1



Regional setting

Three Mile Hill Waste Facility
Environmental Impact Statement
Figure 1.1

Background

The site has been operating as a quarry since 1955, when Newcastle City Council commenced gravel extraction;

In 1996 Woodbury Haulage and Earthmoving were granted approval for continued approval and expansion of the quarry and continue operations;

The quarry has approximately 12 months of operations remaining before material to be extracted runs out.

Photograph 2.1 View of the Quarry from the north-west (December 2021)

Photograph 2.2 View of the Quarry from the east (December 2021)

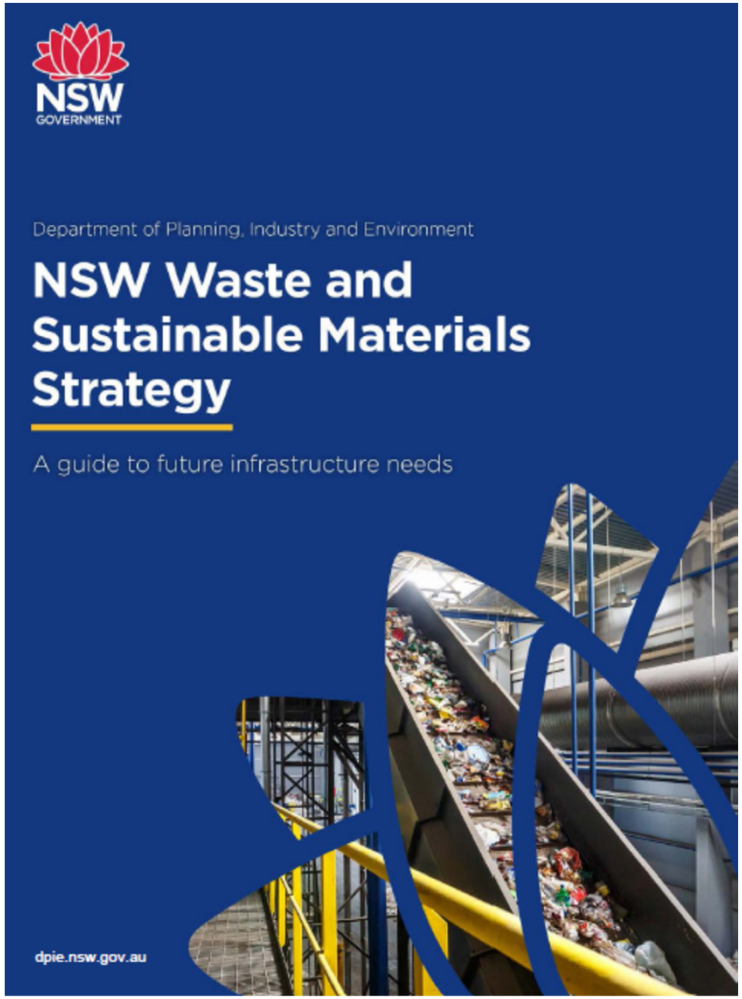
Photograph 2.3 View of the Quarry from the north (December 2021)

Why a Landfill?

Waste disposal data is based on two key datasets produced by the NSW Environment Protection Authority (EPA):

1. NSW Local Government Waste and Resource Recovery Report 2020-21 – for Municipal Solid Waste (MSW); and

2. NSW State of the Environment 2021 Report – for Commercial and Industrial (C&I) and Construction and Demolition (C&D)



The NSW Government reports identify the challenges ahead.

"***NSW is running out of space to deal with residual waste"***

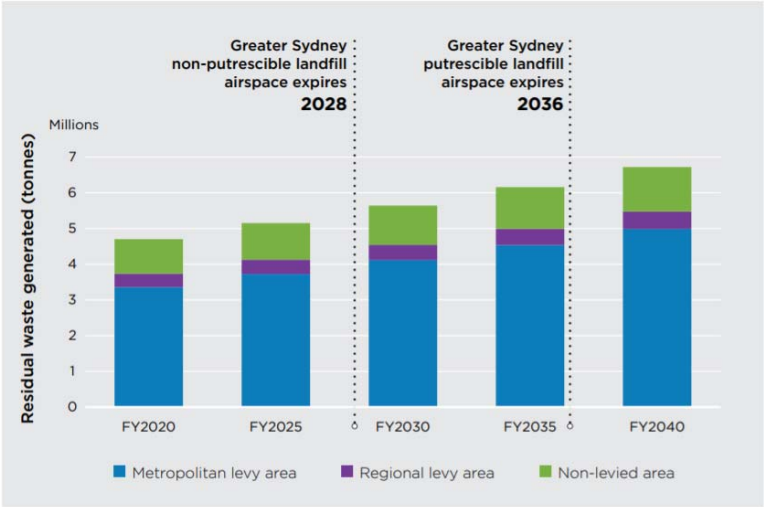
NSW, with its large economy and population, creates around one-third of Australia's total waste. Over the next 20 years, NSW waste volumes are forecast to grow from 21 million tonnes in FY2021 to nearly 37 million tonnes in FY20418.

Even though we currently recycle about two-thirds of our waste, our ambition is to continue to increase that proportion.

***We also need safe and adequate disposal options for the material we cannot recycle**.*

The challenge is to manage this material so that we can avoid the worst of its impacts. This means we need strategies to reduce the volume of waste we generate; reuse, repair and recycle what we can't avoid; ***and make sure that we have enough capacity to safely dispose of the material we cannot recycle**.*

At our current rates of generation and recycling, the putrescible landfills (which accept household waste) servicing Greater Sydney are likely to reach capacity within the next 15 years. ***The non-putrescible landfills (which accept inert commercial and construction wastes) will reach capacity within this decade.***



MRA Consulting progressed an options report for the site.

Mike Ritchie, Managing Director of MRA Consulting and is well respected in the Waste Industry looked at options for the site.

The geographic scope of the market analysis was defined as the Central Coast, Newcastle and Hunter region, including six local councils.

There is only one operation inert landfills in the CNH region. The closest inert landfill identified in the CNH region is Raymond Terrace Landfill (27km away to NE) which can accept up to 250,000tpa.

Table 1 Waste disposal 2020-21 (adjusted)[1]

Geographic region	MSW (tpa)	C&I (tpa)	C&D (tpa)	Total (tpa)
CNH	315,525	265,894	346,818	**928,236**

[1] C&I and C&D waste disposal data adjusted based on population within CNH region.

MRA concludes the following:

• There is approximately 200-250ktpa gap in inert landfill market in the CNH region as Raymond Terrace is the only inert landfill servicing the region

Due to the lack of inert landfill capacity in CNH, it is likely that a significant portion of inert waste is currently being disposed of in putrescible landfills and interstate (mostly QLD) albeit reducing as State Levies are introduced.

Consequently, waste generators are paying a premium to dispose of their inert waste in a proximate (putrescible) landfill and putrescible landfills are filling faster than required.

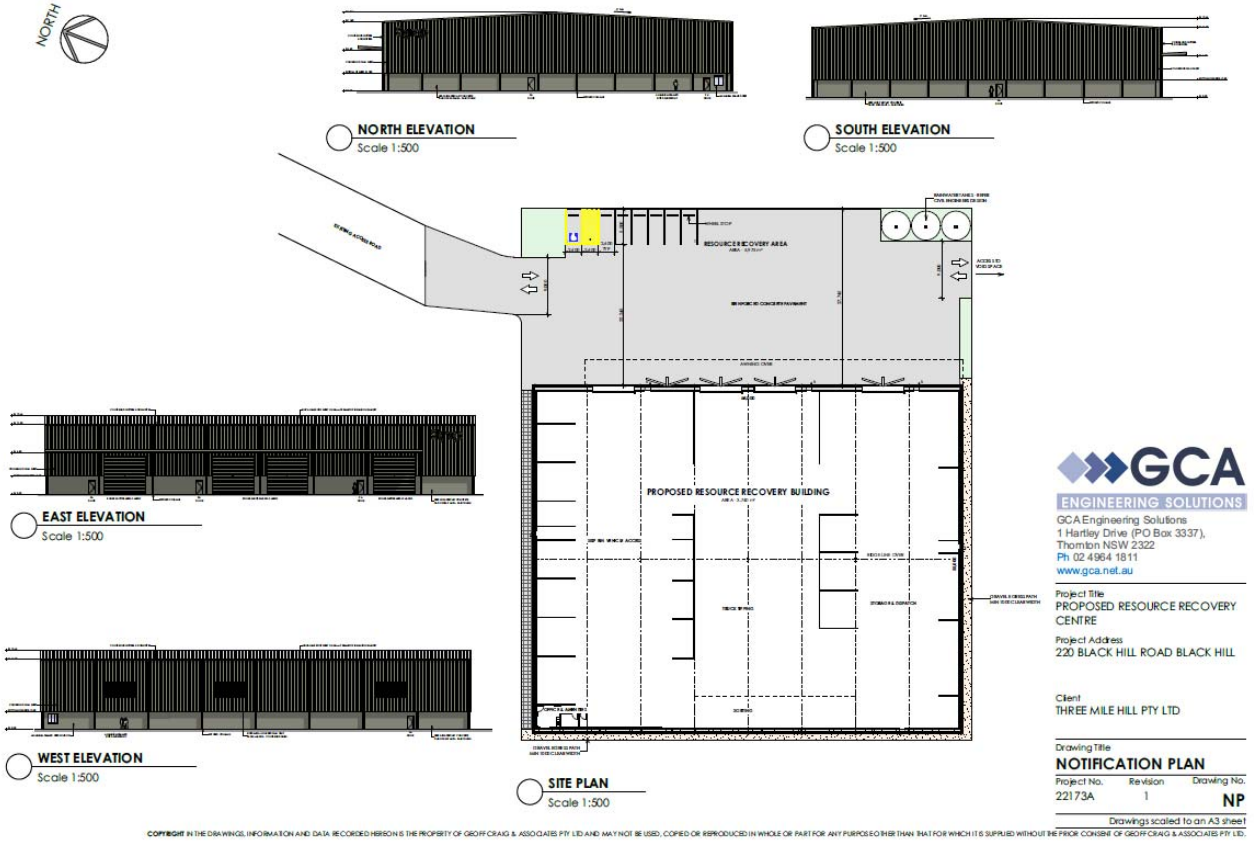
Project Components

Key components of the project comprise:

- use of existing void space
- use of existing access road between Black Hill Road and the quarry void (no change)
- use of existing site amenities, including demountable office and toilet buildings, workshop shed and a gravel parking area (potential for minor reconfiguration within existing amenities footprint – negligible disturbance)
- construction and use of new facilities:
  - dual weighbridge with small weighbridge office next to existing site office
  - resource recovery area
  - landfill
  - temporary and permanent leachate dams, leachate recovery system and stormwater ponds within the void

Resource Recovery

Resource recovery area includes an enclosed building, comprising a sorting area, storage bays, mobile equipment including material handlers, crushing and screening equipment.

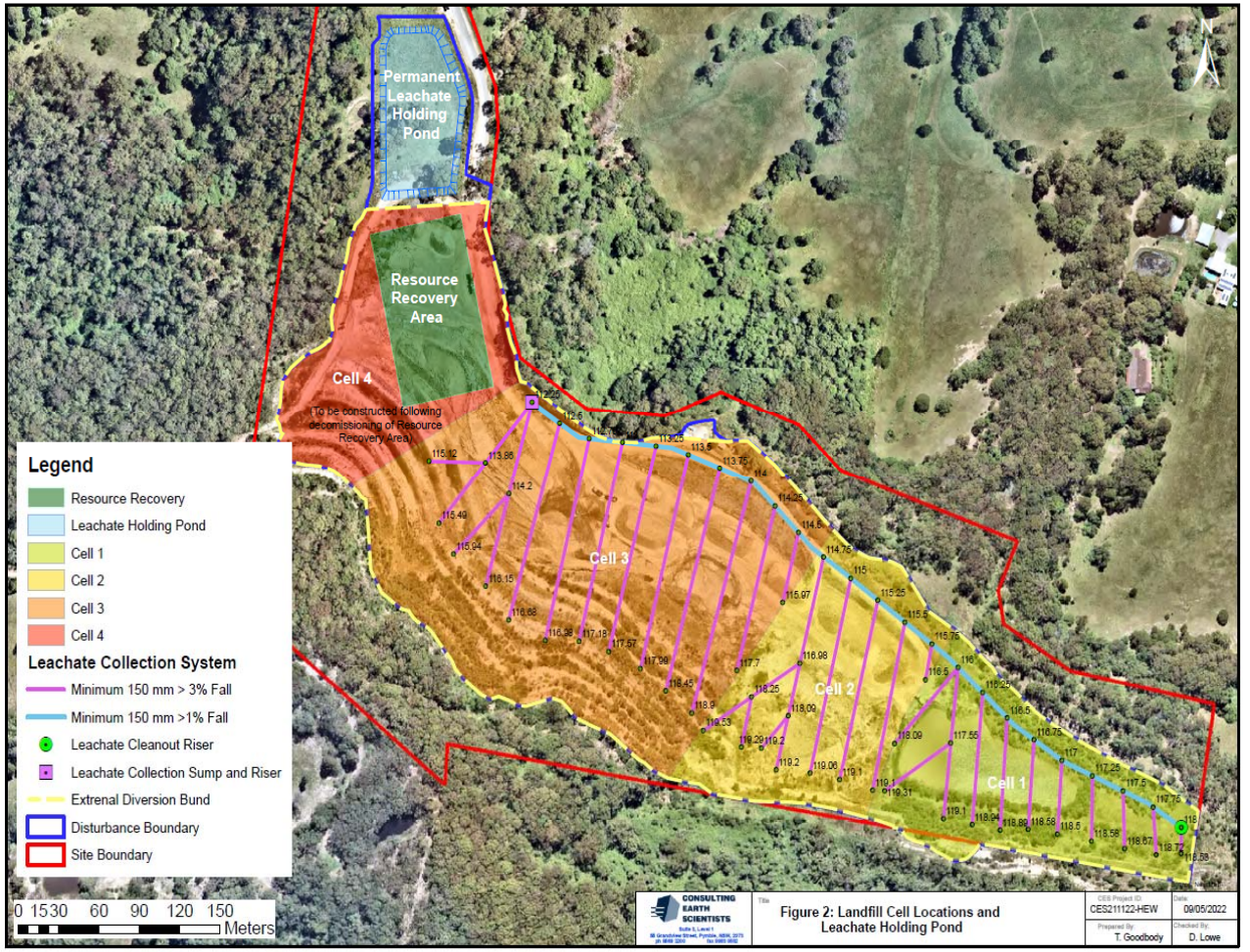


Landfill

Landfill comprising approximately four lined cells (cell 1 to cell 4) within the existing quarry void

Temporary leachate dams, leachate recovery system and stormwater ponds within the void and permanent leachate dam located north of the void to service the final cell and legacy leachate

Reinstating the original topography on closure



Waste types

Waste types = General Solid Waste (non-putrescible)

- construction and demolition waste
- commercial and industrial waste
- municipal solid waste

Truck movements

The total daily truck trips for resource recovery and landfill operations are estimated to be 54, which will generate 108 daily truck movements (inbound and outbound movements). There will be approximately 16 and 11 truck movements in the AM and PM peak hour respectively.

Quarry approval allows up to maximum of 55 trucks (110 movements) per day. Transport of quarry products will cease, ie no increase in approved truck movements.

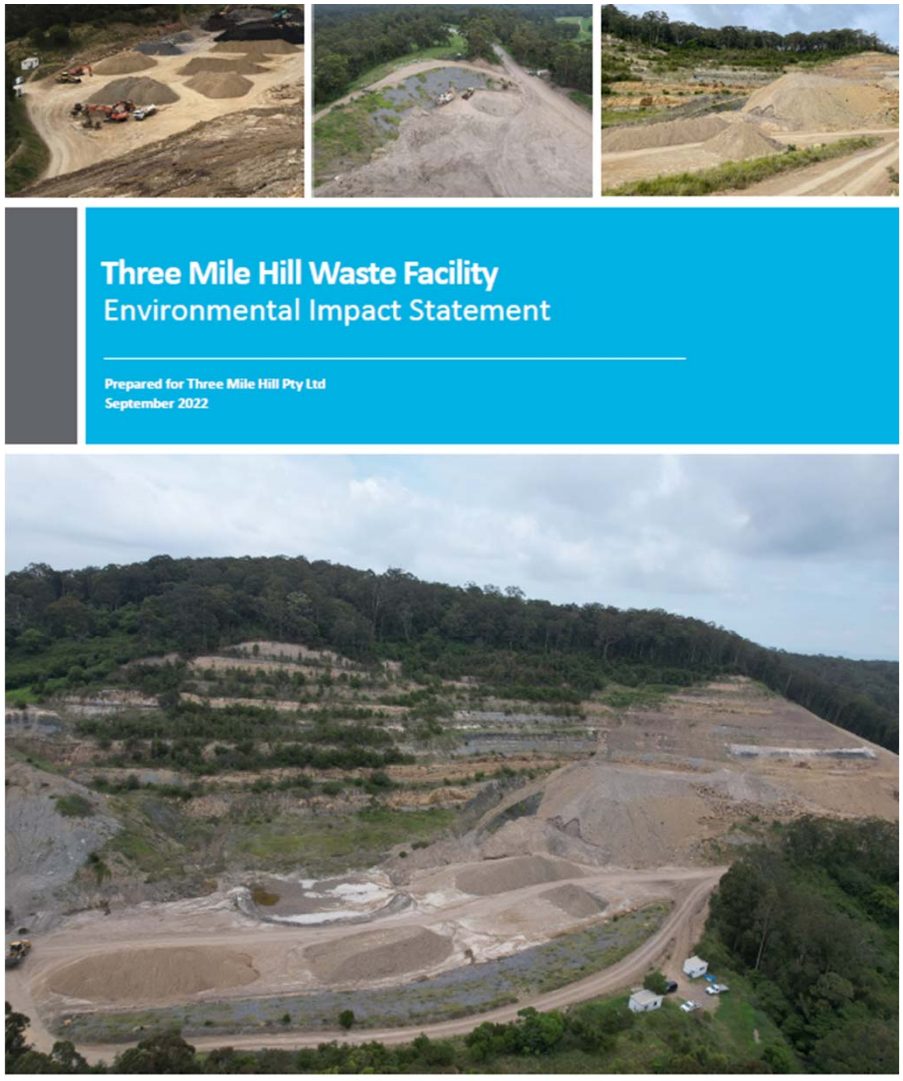
Consultation

Government:

- Council
- DPE
- EPA
- NSW Rural Fire Service
- Subsidence Advisory NSW

Landholders:

- Three Mile Hill has liaised with directly impacted landholders and have formal agreements in place with these landholders.



<u>EIS and technical specialist assessments:</u>

Resource Recovery Centre Concept Design;

Statutory Compliance;

Landfill gas and Leachate Management;

Bushfire Assessment;

Biodiversity Assessment;

Traffic Impact Assessment;

Visual Impact Assessment;

Noise and Vibration Impact Assessment;

Air Quality and Greenhouse Gas assessment;

Water Impact Assessment;

Soil and Water Management Plan;

Water Balance Modelling Report;

Rehabilitation Strategy;

Aboriginal Heritage Due Diligence

EMM
creating opportunities

Key issues

Biodiversity:
- the project has been designed to avoid clearing vegetation with higher biodiversity values
- some clearing will be required (total 3.64 ha) – primarily (93%) in rehabilitation areas
- biodiversity offsets will be required

Visual:
- recycling building will be partially visible above the rim of the quarry void for the duration of operations
- the landfill will be evident to some receptors in the surrounding viewshed when it is approaching the ridgeline
- filling and covering the void will provide a long-term improvement in visual amenity impact of the site compared to leaving the quarry void

Noise and vibration:
- operational noise levels predicted to generally comply with the project noise trigger levels (PTNLs) for the majority of the life of the landfill with some negligible exceedances (up to 2 dB above PTNL)

Air quality and odour:
- dust (total suspended particulate matter, PM10, PM2.5 and dust deposition) predicted to meet assessment criteria at all surrounding assessment locations.
- non-putrescible waste so odour will be below the applicable impact assessment criteria at all surrounding assessment locations.

Traffic:
- All trucks to access site from John Renshaw Drive (consistent with current quarry movements)
- No degradation in intersections level of service
- Ample mid-block road capacity

Water:
- fully-lined landfill with leachate collection and management system
- water quality objectives predicted to be met
- void does not intersect underlying groundwater

Rehabilitation:
- significant improvement as the existing quarry operation has no obligation to rehabilitate the void under their existing development consent.