Rix's Creek South Mine

SSD6300 IPCN Additional Information – Mine Plan 6 September 2019



WE CARE. WE DELIVER.



















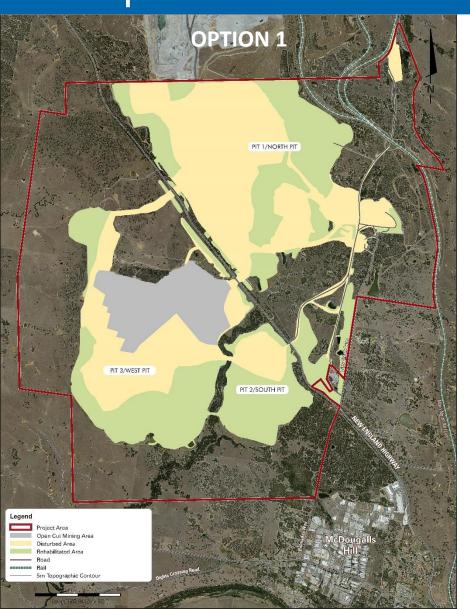


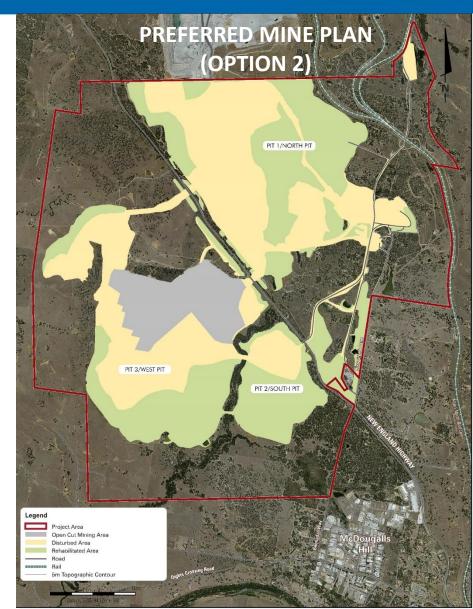
OUR PURPOSE: We are a proud and successful Australian mining and engineering group

OUR VISION: We seek excellence in all we do: respecting our history as we shape our future

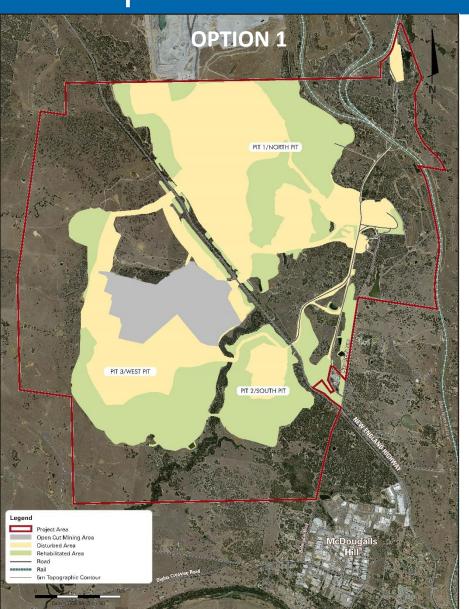
OUR VALUES: We Care. We Deliver.

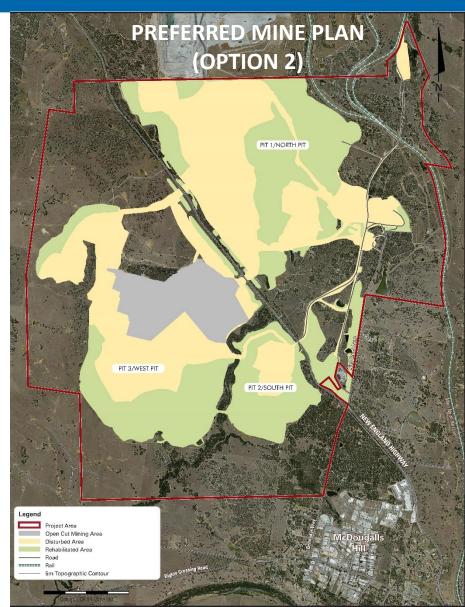




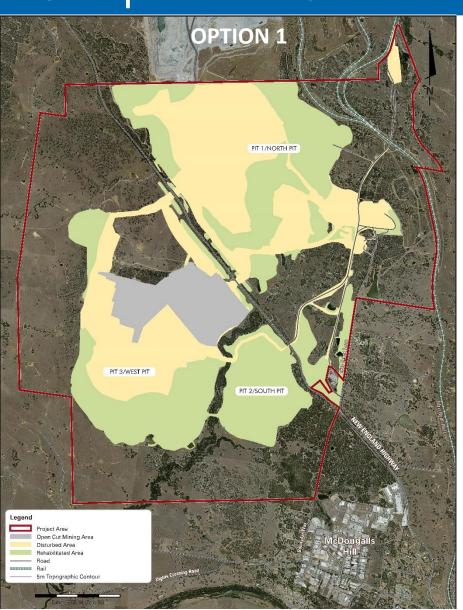


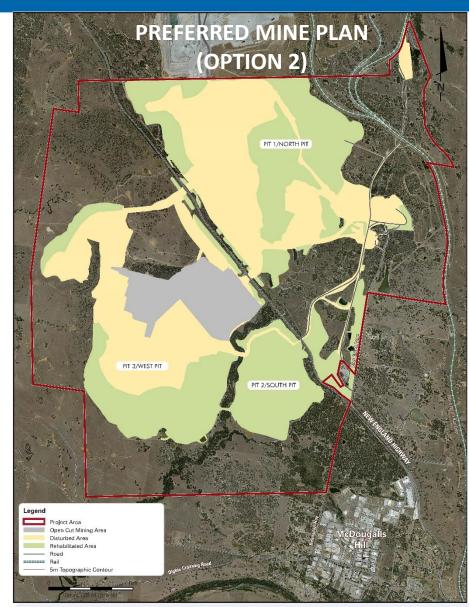




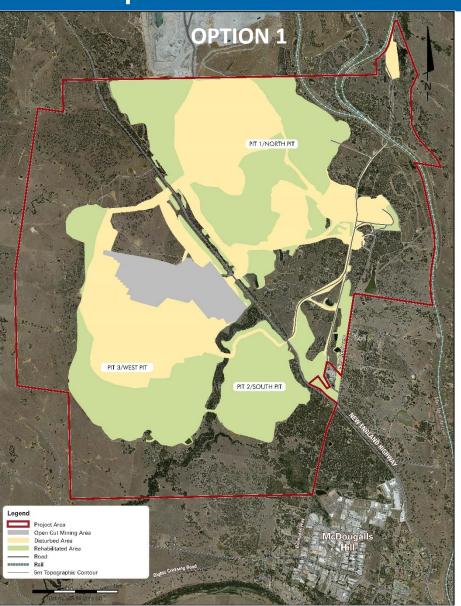


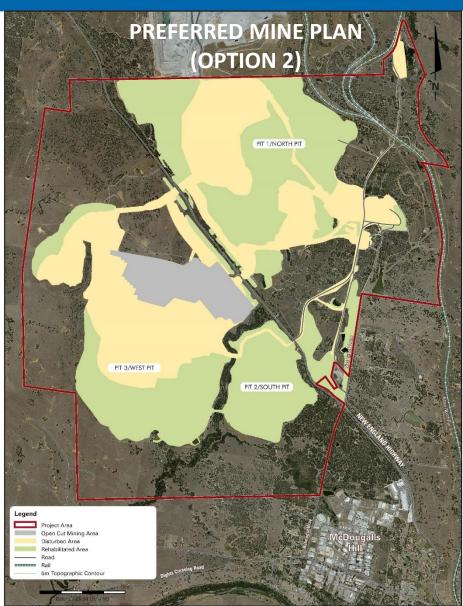




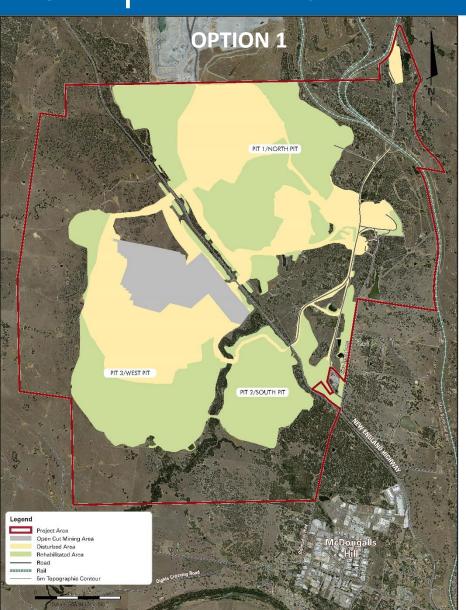


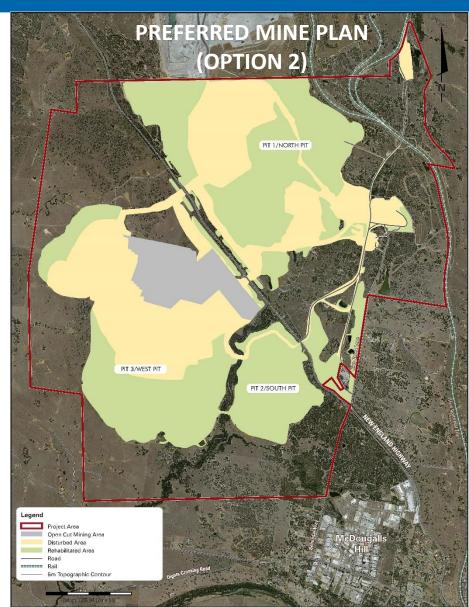




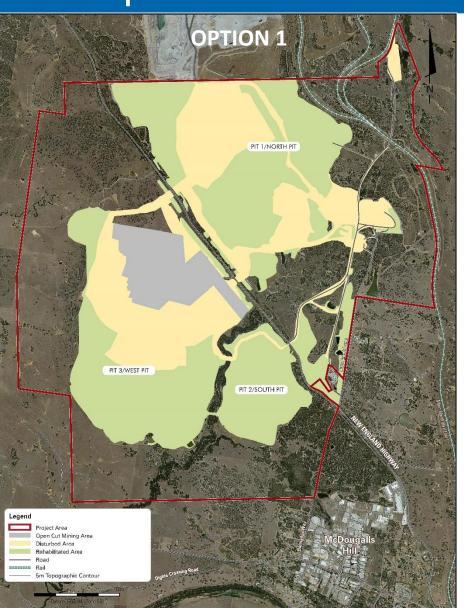


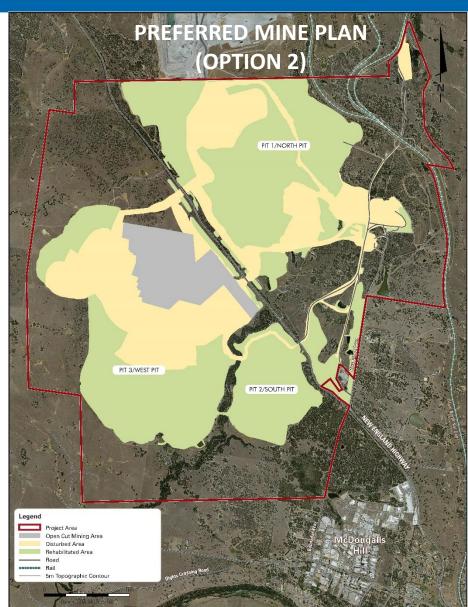




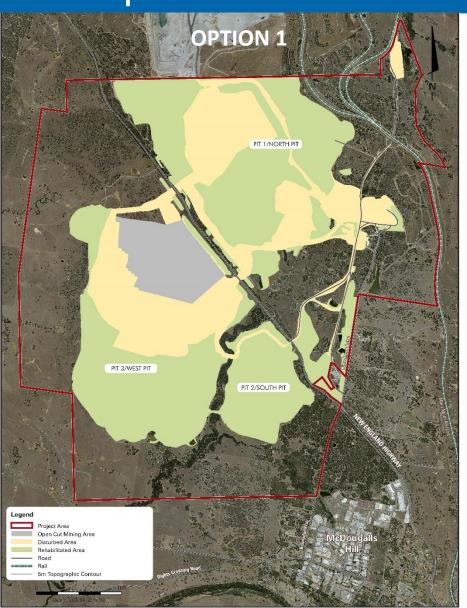


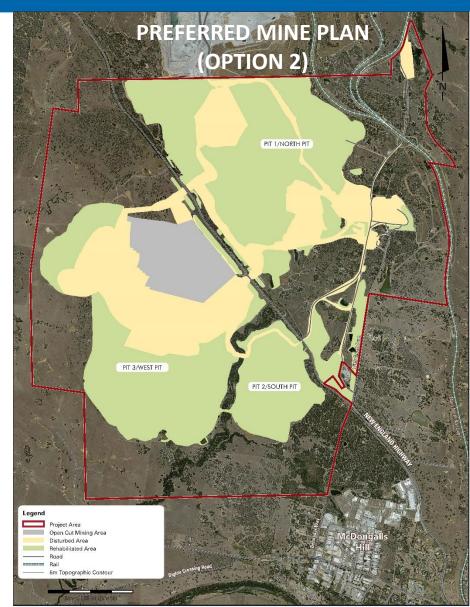




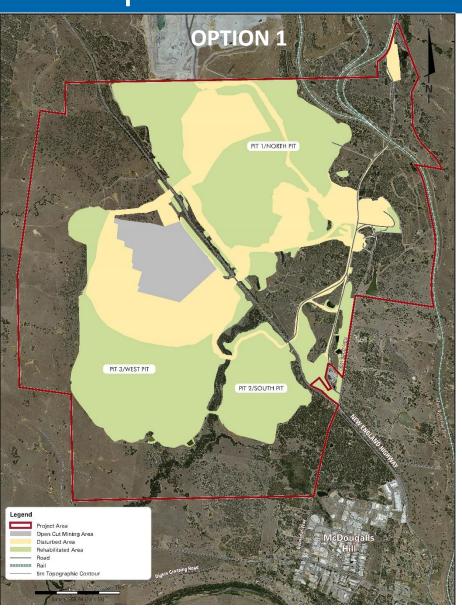


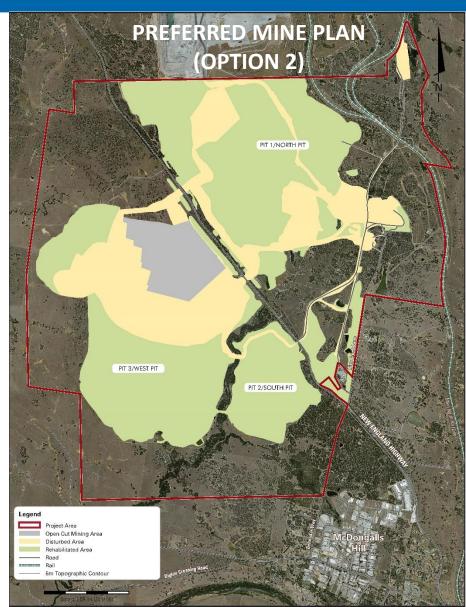




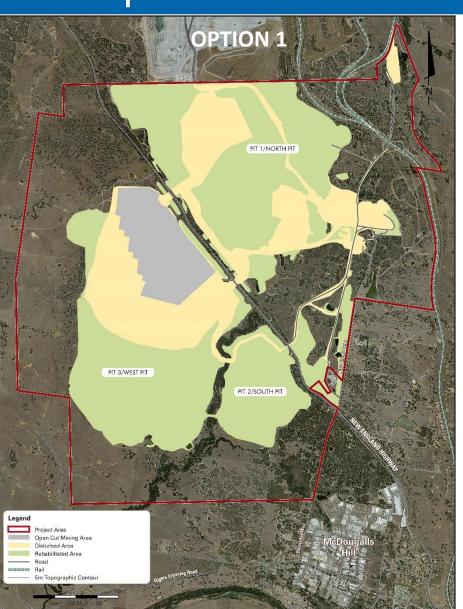


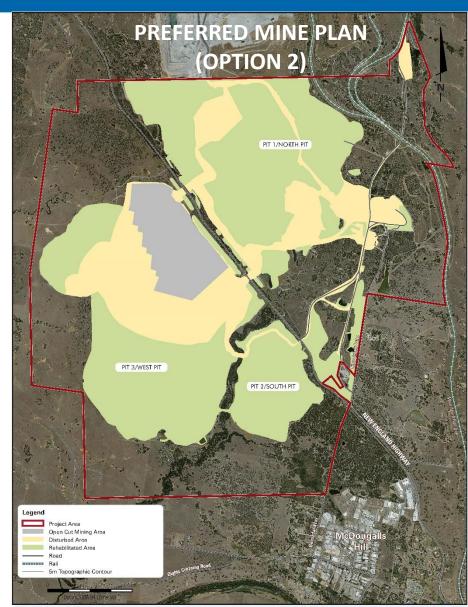




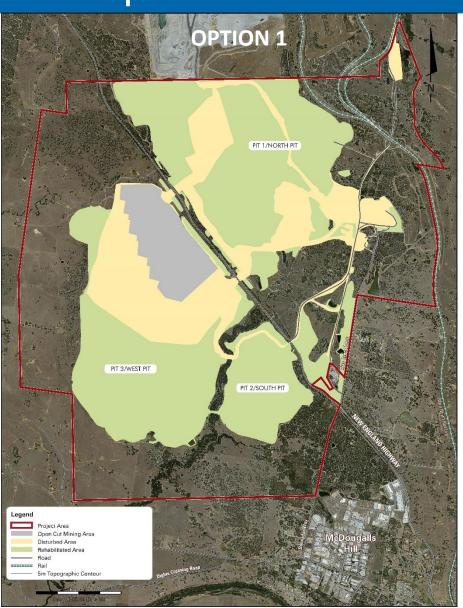


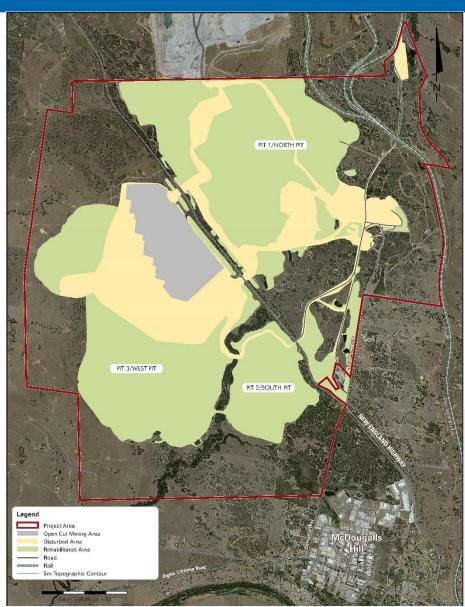




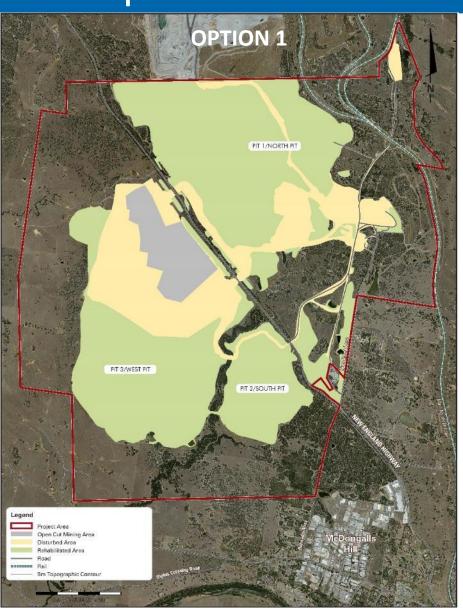














Preferred Mine Plan and Option 1 Comparison Final Landform

New disturbance area



OPTION 1 PREFERRED MINE PLAN (OPTION 2) PIT 1/NORTH PIT RIX'S CREEK MINE PIT 3/WEST PIT Project Area Rehabilitation - Trees over pasture ease extension area Rehabilitation - Pasture areas CL352 Boundary Rehabilitated topsoil stockpile area Arties Pit re-disturbance area Proposed West Pit Rehabilitation area above RL160 Proposed Arties Pit Rehabilitation area above RL14 Railway Final depression water storage ✓ Drainage line Other water storages

5m Topographic contour

Progressive Rehabilitation Tables



Progressive rehabilitation for Option 1

| | OPTION | 1 | | | | | | | | | | | |
|------|------------------|---------------------|-----------|-------------------------|------------------|---------------------|-----------|-------------------------|------------------|---------------------|---------------|-------------------------|---------------------------------------|
| | | | | | | | | | | | <u></u> ТЗ | | |
| | PIT 1 | | | | PIT 2 | | | | | | | | |
| YEAR | Active Mining | Disturbance area | New Rehab | Cumulative New Rehab | Active Mining | Disturbance area | New Rehab | Cumulative New Rehab | Active Mining | Disturbance area | New Rehab | Cumulative New Rehab | Total Cumulative Rehabilitation |
| 2020 | 0 | 274.4 | 3.4 | 3.4 | 0 | 26.1 | 5.9 | 5.9 | 103.9 | 140 | 5.9 | 5.9 | 15.2 |
| 2021 | | | | | | | 6.3 | 12.2 | 97.8 | | | | |
| 2022 | | | | | | | 24.5 | | 90.5 | | | | |
| 2023 | | 200.7 | | | | | 0 | 36.7 | 71.8 | | | | |
| 2024 | | 192.3 | | | 0 | 3.4 | 0 | | 80.2 | 170 | 15.1 | | |
| 2025 | 0 | 176.4 | 15.9 | 101.9 | 0 | 3.4 | 0 | 36.7 | 88.2 | 150.6 | 26 | 79.6 | 218.2 |
| 2026 | 0 | 166.4 | 10.1 | 112 | 0 | 3.4 | 0 | 36.7 | 82.9 | 144.5 | 17.5 | 97.1 | 245.8 |
| 2027 | 0 | 153.2 | 13.1 | 125.1 | 0 | 3.4 | 0 | 36.7 | 71.5 | 142.6 | 13.3 | 110.4 | 272.2 |
| 2028 | 0 | 144 | 9.3 | 134.4 | 0 | 3.4 | 0 | 36.7 | 90.8 | 141.4 | 1.9 | 112.3 | 283.4 |
| 2029 | 0 | 123.5 | 20.4 | 154.8 | 0 | 3.4 | 0 | 36.7 | 82 | 142.5 | 7.6 | 119.9 | 311.4 |
| 2030 | 0 | 86.9 | 36.6 | 191.4 | 0 | 3.4 | 0 | 36.7 | 66.8 | 146 | 11.8 | 131.7 | 359.8 |

Note; all areas are in hectares

Disturbance area of 3.4ha in Pit 2 is associated with a roadway

Progressive Rehabilitation Tables



Progressive rehabilitation for Option 2

| | OPTION 2 | 2 | | | - | | | | | | | | |
|------|------------------|---------------------|-----------|-------------------------|-------|---------------------|-----------|-------------------------|--------|---------------------|-----------|-----------|------------|
| | PIT 1 | | | | PIT 2 | | | | PIT 3 | | | | |
| YEAR | Active Mining | Disturbance area | New Rehab | Cumulative New Rehab | | Disturbance area | New Rehab | Cumulative New Rehab | | Disturbance area | New Rehab | New Rehab | Cumulative |
| 2020 | 0 0 | 244.8 | 3 5.5 | 5 5.5 | 0 | 26.1 | 5.9 | 5.9 | 103.9 | 9 176.8 | 3 14.7 | 7 14.7 | 7 26.1 |
| 2021 | 0 | 241.4 | 3.4 | 8.9 | 0 | 27.9 | 6.3 | 12.2 | 97.8 | 192.2 | 6.3 | 3 21.0 | 42.1 |
| 2022 | 0 | 232.7 | 7 8.7 | 17.6 | 0 | 3.4 | 1 24.5 | 36.7 | 90.5 | 5 195.1 | L 4.4 | 1 25.4 | 79.7 |
| 2023 | 0 | 181.7 | 51.6 | 69.2 | . 0 | 3.4 | 1 0 | 36.7 | 71.8 | 218.8 | 3 14.3 | 39.7 | 7 145.6 |
| 2024 | 0 | 173.7 | 7 7.9 | 77.1 | . 0 | 3.4 | 1 0 | 36.7 | 7 80.2 | 2 215.2 | 2 22.9 | 62.6 | 176.4 |
| 2025 | 0 | 145 | 5 28.8 | 105.9 | 0 | 3.4 | 1 0 | 36.7 | 7 88.2 | 187.5 | 33.1 | 1 95.7 | 238.3 |
| 2026 | 0 | 124.6 | 5 20.4 | 126.3 | 0 | 3.4 | . 0 | 36.7 | 82.9 | 174.4 | 23.7 | 7 119.4 | 282.4 |
| 2027 | 0 | 118.4 | 4 6.2 | 132.5 | 0 | 3.4 | . 0 | 36.7 | 7 71.5 | 166.8 | 18.9 | 138.3 | 307.5 |
| 2028 | 0 | 116.4 | 1 2 | 134.5 | 0 | 3.4 | 1 0 | 36.7 | 90.8 | 161.9 | 5.7 | 7 144 | 315.2 |
| 2029 | 0 | 108.8 | 7.5 | 142 | . 0 | 3.4 | . 0 | 36.7 | 7 82 | 150 | 17.1 | 161.1 | 339.8 |
| 2030 | 0 | 86.9 | 21.9 | 163.9 | 0 | 3.4 | 1 0 | 36.7 | 66.8 | 3 146.6 | 5 20.9 | 182 | 382.6 |
| 4 | | | | | | | | | | | | | |

Summary



Option 2 is the preferred plan for the following reasons:

- Provides the greatest operational flexibility with additional dump destinations for managing air quality and noise impacts. The Option 2 Western OEA provides screened emplacement with the majority of the volume at levels 20m below the North Pit OEA.
- Improved final landform outcomes with slopes designed to facilitate cattle grazing with improved productivity and final landuse income along with reduced long term erosion compared with Option 1.
- Lower Scope 2 emissions for waste haulage compared with Option 1.
- Improved truck fleet utilization compared with Option 1.
- Biodiversity reduction in credits of 24% compared with the EIS case. The majority of vegetation in the Option 2 Western OEA is grassland and the impact on the area of trees is similar for Option 1 and Option 2.
- Visual impact and final landform assessments: no material difference but Option 2 does have a North Pit dump height 10 meters lower than Option 1.
- Noise and dust impacts comparable to the EIS case.
- Lower overburden haulage costs compared to Option 1.
- Cost assessment Option 2 essentially cost neutral (\$.9M additional cost on NPV basis) compared with EIS case and \$5.5M less than Option 1 (on NPV basis).