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Tomingley Gold Operations COMMUNITY UPDATE

ISSUE 26 / OCT 2021

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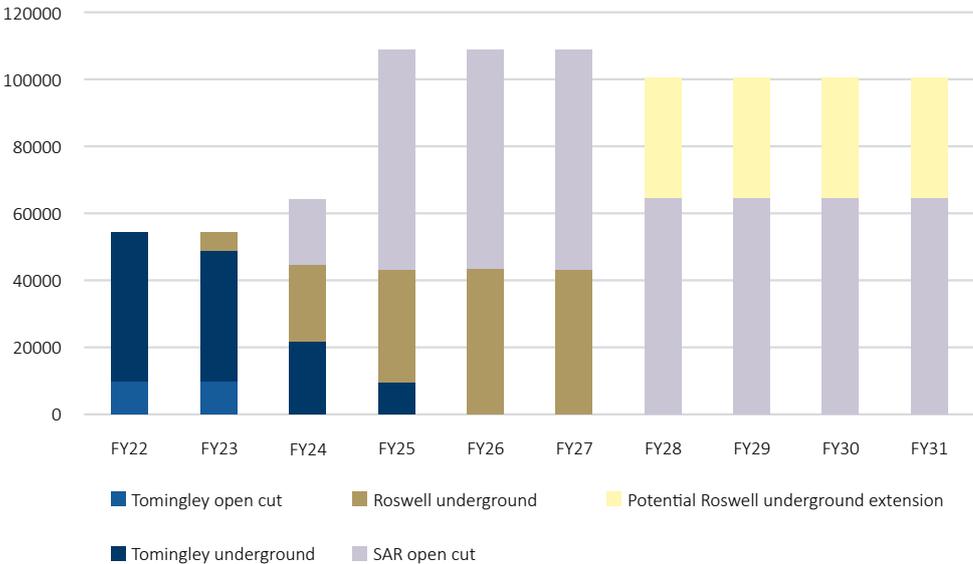
What's been happening on site Tomingley Life of Mine Plan Extended to 2031

Alkane has incorporated the San Antonio and Roswell resources (which are the foundation for the Tomingley Gold Extension Project) into the Tomingley life of mine plan. Operations have been extended to at least 2031, pending approval of the TGEP (see further on for more on the project).

The revised life of mine plan incorporates the existing underground development at Wyoming One and Caloma and the Caloma One cut-back, transitioning into underground mining at Roswell and the San Antonio Roswell (SAR) open cut.

The plan shows the production of approximately 745,000 ounces of gold for the period to 2031, with processing ramping up to a 1.5Mtpa feed rate.

Indicative production volume by ore source and year for Tomingley's updated life of mine plan



The current operation has continued to operate well, despite the challenges presented by the pandemic, with mining continuing both underground and in the open cut. Our mining fleet also continues to expand with the arrival of several new vehicles (right).

Our COVID-19 approach

Over the past few months, we've continued to operate in full compliance with the NSW Government's public health orders due to the COVID-19 pandemic.

It has not, however, been without its challenges. We've had staff residing in different Local Government Areas, and changes to the public health orders impacting, at times, quite markedly on shift numbers.

To assist with vaccination numbers, we've implemented a staff incentive scheme and supported our teams to get vaccinated via one of the many options.

As a result, more than 90% of our employees having received their first dose, with double-dosed numbers steadily growing.

We are fortunate that our strict COVID-safe measures – and fantastic adherence to these by our many employees, service providers and suppliers – have seen our site remain COVID-free. We thank everyone for working together.

New Tomingley faces

We are pleased to have welcomed several new key staff members since July.

Chris Taylor has commenced as TGO Underground Manager, following the promotion of Jason Hughes to General Manager Operations. Chris has extensive experience as an underground manager from mines in Australia and overseas.

Greg Betteridge has been appointed TGO Commercial Manager. Greg has a background in the mining industry and has relocated from Queensland, where he worked in a similar role.

Jenna Lehmann has joined our team as Environmental Coordinator. Jenna was Environment & Social Responsibility Advisor at the Peak Gold mine at Cobar for over five years.

Independent environmental audit

During the latter part of May, a government-approved independent auditor visited the Tomingley site to undertake a thorough environmental audit of our operations. This happens every three years as a requirement of project approval.

The audit included a comprehensive field assessment, along with a detailed review of the site's compliance in relation to all environmental approval conditions and licences. It reported a very small number of low-risk non-compliances that predominantly related to data management. The auditor also provided a number of improvement recommendations.

In September, we submitted a compliance report and associated action plan in response to the listed non-compliances to the Department of Planning, Industry and Environment, and are awaiting feedback.



Water quality testing

Tomingley Gold Extension Project

Status of development application

The Tomingley Gold Extension Project (TGEP), which seeks to extend our mining operations to the San Antonio and Roswell deposits, has moved into the next stage of the approval process.

The Scoping Report was submitted to the Department of Planning, Industry and Environment (DPIE) in June 2021 and Secretary's Environmental Assessment Requirements (SEARs) were issued in July ([see the DPIE Major Projects website](#)).

Currently, we are finalising the Environmental Impact Statement (EIS), which addresses the matters outlined in the SEARs. The EIS is well advanced, and later in this newsletter we've summarised some of the key outcomes of the environmental impact assessments.

We anticipate having the EIS available for submission in late October. DPIE will conduct a high-level review, then the document will be made available for public exhibition for a minimum of 30 days – hopefully in November-December.

The timing of receiving a "Gateway Certificate" (see [DPIE Website](#) for more information) will influence whether the EIS will be exhibited in November/December 2021 or January/February 2022.

During the public exhibition period, members of the public can make submissions for and against the project to DPIE. These submissions help DPIE assess the overall application and determine whether the project is to be approved. We are hoping to achieve approval by mid-2022.

Design updates

Since the last newsletter, we've focused primarily on detailed design and optimisation, with no major changes to the layout of the project.

Some of these improvements are:

- Lower profile of the Caloma waste rock emplacement (involving backfill of the existing open cuts)
- Design of the Newell Highway realignment to withstand flooding up to a 1 in 100-year rainfall event (instead of every four to five years experienced by the current highway)
- Incorporation of dedicated right-hand turn lanes for the new highway intersections with Kyalite Road, Back Tomingley West Road and McNivens Lane, substantially increasing safety at those intersections; and
- Design of the proposed Kyalite Road overpass to cater for all vehicles, including oversize and overweight vehicles, removing the requirement for a heavy vehicle bypass.

Exploration drive

In 2020, TGO received approval to develop an underground exploration drive from our current underground operation towards the Roswell deposit.

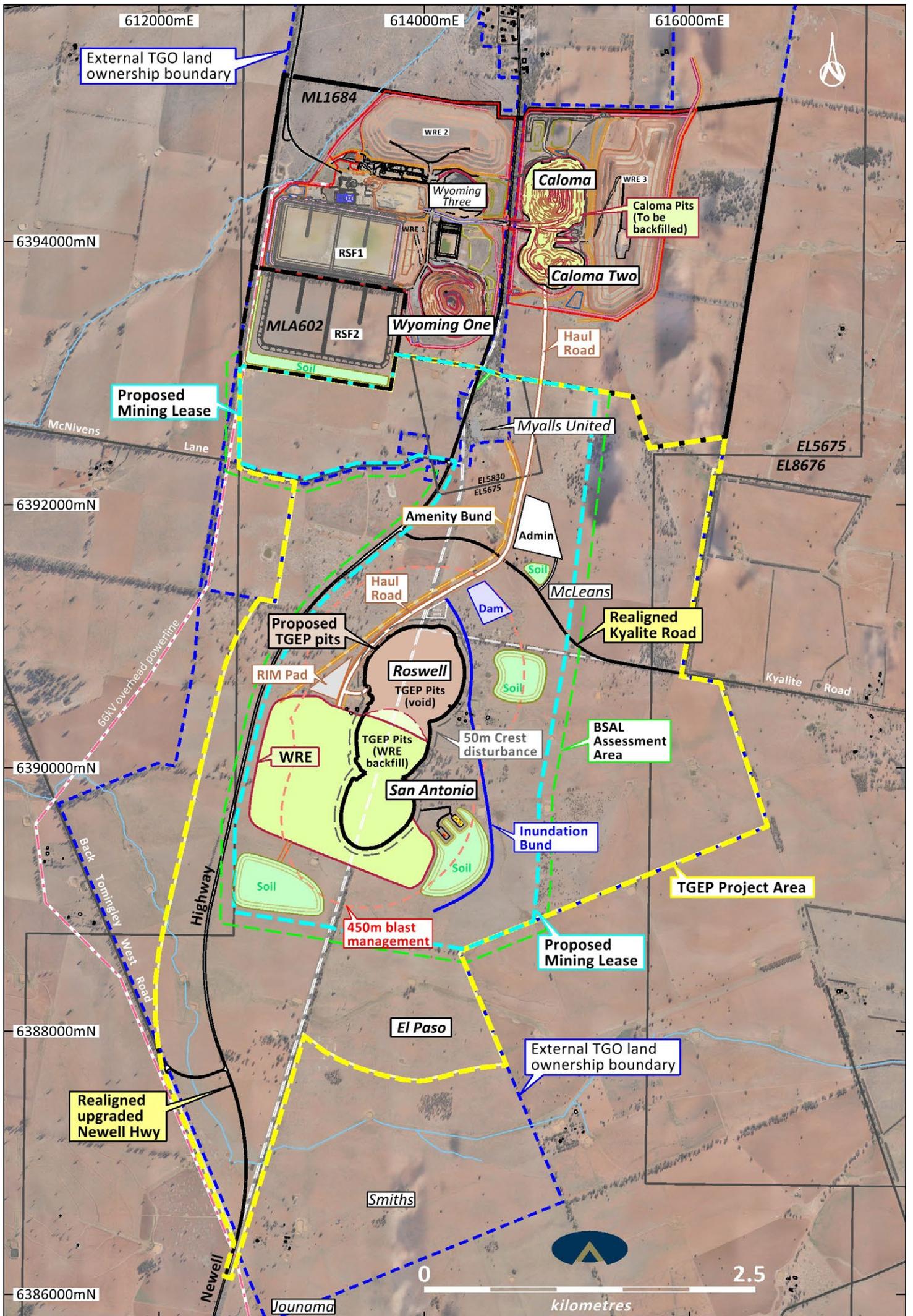
We've accelerated construction of that drive, which starts from the Wyoming One workings on the western side of the Newell Highway and heads south towards Roswell, about 2.5km away.

The exploration drive will provide access for further exploration and more accurate sampling of the deposit.

Pending approval of the project and granting of a Mining Lease, it will also become the starting point for underground mining at Roswell, as per our updated life of mine plan.

Two ventilation rises will be required along the length of the exploration drive. These vertical shafts will be constructed on TGO-owned land, each fenced off to prevent access.

One of these will be located around 100m north of McNivens Lane, with the other located just to the north of the proposed Roswell open cut.



Updated infrastructure layout plan for the Tomingley Gold Extension Project

Environmental Assessments

A team of specialist consultants has been working hard to complete the environmental impact assessments that lead to the EIS. Below is a brief overview of the results of those assessments of the San Antonio and Roswell (SAR) mine site, and some of the actions that will be undertaken in the event approval is achieved.

Air Quality

The air quality assessment looks at the potential impact of dust generated by the project. The studies consider three phases of the project (namely construction and Years 1 and 2 of mining operations) and model the anticipated cumulative (project + background) annual deposits of four types of dust:

- average deposited dust
- total suspended particulates
- PM₁₀ (very fine dust less than 10µm in diameter)
- PM_{2.5} (ultrafine dust, commonly produced by combustion rather than dust off roads and other areas)

Anticipated cumulative annual average deposited dust, total suspended particulates and PM₁₀ are all expected to be substantially less than the relevant criteria.

The annual average cumulative PM_{2.5} is expected to exceed the annual average criterion of 8µg/m³. However, background levels (based on air quality levels in Bathurst) were 8.6µg/m³ and by themselves exceeded the criterion. The project would contribute up to 0.7µg/m³.

Daily average PM₁₀ dust levels will vary depending on the weather and activities being undertaken on site. Currently, there are five days when the 24-hour average PM₁₀ dust levels exceed the 25µg/m³ criterion. The project may result in a small number of additional exceedances at selected residences. To manage this, we will install additional dust monitors that would measure PM₁₀ in real-time and alert staff when dust levels are becoming high. On-site activities would then be adjusted to limit dust emissions.

Noise

The noise assessment looks at the potential impact of noise generated by the project. The studies consider five operational scenarios (namely construction, Years 1, 2, 4 and 7 of mining operations) and the likelihood noise emissions would exceed standard noise criteria (specified decibel levels).

During construction operations, particular activities may result in exceedance of relevant noise criteria for short periods at selected residences during the daytime only. During mining operations, activities would be undertaken 24-hours per day and noise emissions that exceed the relevant criteria are not anticipated during the evening and night.

Within Tomingley, most residences that would be affected have been the subject of previous TGO-funded noise mitigation, including fitment of double pane windows, insulation and installation of air conditioning. Discussions with the owners of rural residences that would be affected are ongoing.

To manage noise emissions, particularly during the evening and night, we will install additional noise monitors to measure noise in real-time and, just like dust emissions, would alert staff when noise levels are becoming high. On-site activities would then be adjusted to limit noisy activities during sensitive periods.



Air quality monitoring station

Traffic and Transport

Since the San Antonio and Roswell deposits are located underneath the Newell Highway, we'll need to construct an alternate section of road that bypasses the development.

We'll also need to realign Kyalite Road, as described in our last newsletter. We've consulted extensively with the community, road users and government stakeholders to design these roads.

The new roads will be constructed to Austroads standards and the design will be approved by Transport for NSW and Narromine Shire Council.

The new section of the Newell Highway will include upgraded safety infrastructure, including wire rope barriers, 1m wide separation between travel lanes and dedicated right-turn lanes for each of the proposed intersections. Refer to the project map for an indicative path of the new section of road, which will also be less prone to flooding.

The construction phase of the new sections of road won't impact or disrupt road users until the new sections are ready to be connected to the existing road network.

Once the realigned roads are completed, there will be some changed travel times and distances:

- Tomingley to Peak Hill – additional approximately 410m and 13s travel time
- Thornycroft Road to Tomingley – reduced by 60m and 2s travel time; and
- Thornycroft Road to Peak Hill – additional 1.67km and 59s travel time.

Additionally, there'll be no need to close the highway during routine blasting operations.

Biodiversity

Biodiversity surveys for the TGEP began in September 2019, and two years later are finally nearing completion. Most of the area is cleared agricultural land. However, the surveys have identified four types of native vegetation. One of these is Fuzzy Box (*Eucalyptus conica*) woodland, which is classified as a Threatened Ecological Community. We've already started planting more Fuzzy Box seedlings to build up this community.

The surveys also identified three threatened bird species, namely the Grey-crowned Babbler (*Pomatostomus temporalis*), Superb Parrot (*Polytelis swainsonii*) and Glossy Black Cockatoo (*Calyptorhynchus lathami*). While the Superb Parrot is a seasonal visitor and Glossy Black Cockatoo was likely present only because habitat further east had been impacted by bushfire, the Grey-crowned Babbler is local to the area. We are already managing and enhancing remnant habitats for this species.

The biodiversity assessment is currently being finalised, with the final biodiversity impacts and offset requirements yet to be determined.

Surface water

The project has been designed to ensure all surface water flows (from rain etc) are diverted around the mine site. All potentially mine-affected water would be retained onsite, ensuring no downstream impacts on water quality.

This diversion of surface water flows around the open cut and Newell Highway will result in minor changes to flow paths, with additional overland flows in some areas and reduced flows in others. We've consulted with landholders to ensure none are worse off, including working with landholders to redivert surface water as required.



Groundwater

An extensive groundwater assessment was undertaken to determine the impact of the project on groundwater aquifers and registered production bores within 10km.

In the project vicinity there are two groundwater aquifers, separated by a thick zone of clay which prevents water moving between them. One is a shallow alluvial aquifer associated with major drainage lines, including Bulldog and Gundong Creeks. This aquifer will not be impacted by the project.

The development will, however, intersect the second, which is a deeper aquifer in the fractured basement rocks, typically 60-80m below the surface. This aquifer is classified as saline and the water is unsuitable for agricultural uses. The closest registered stock and domestic bore in this fractured rock aquifer is located approximately 7.5km from the open cut.

Groundwater modelling indicates that approximately 425ML would flow into TGO's combined open cut and underground workings in FY2025 (currently 200-250ML per year), increasing to approximately 767ML in FY2026, before decreasing to 450-600ML per year after that. We'll obtain additional aquifer licences for the anticipated inflows and have committed to remodelling the groundwater inflows before FY2026 once more groundwater data has been collected.

At the closure of the mine, the zone of drawdown (lowering of water table) is expected to be less than 1km from the mine workings, extending to less than 2km from the workings after 200 years. No registered stock and domestic bores would be impacted. Enough licences will be retained to account for evaporation from the final void after mining finishes.

Aboriginal Heritage

A survey of the SAR mine site was undertaken in conjunction with the local Aboriginal community. The survey identified 39 sites of Aboriginal heritage significance, comprising two scarred trees, eight artefact scatters and 29 isolated finds.

The project would result in disturbance of 12 of the identified sites. Consultation with the Aboriginal community in relation to management of the proposed disturbance is ongoing. We will identify and manage the balance of Aboriginal heritage sites to prevent disturbance by operations.

Historic (post-European settlement) Heritage

The heritage assessment identified three sites of potential historic heritage.

McPhail Mine – McPhail Mine operated between 1883 and 1913, with historic shafts and tailings the principal remaining evidence of mining operations from that time. The mine is located near the heavy vehicle rest area, south of the Caloma Two Open Cut, on the eastern side of the highway, and would not be disturbed by the project.

Village of McPhail – The former village of McPhail lay to the west of the McPhail Mine and included a hotel, McGaw's store, church and school. The only remaining evidence at the surface is scattered brick, glass and ceramics. Since the site would be disturbed by the realigned Newell Highway, we propose to run a test excavation to determine whether there are any hidden items of historical note for preservation and archival documentation.

"Rosewood" Homestead and Trotting Stud – Rosewood comprises a range of agricultural buildings, including a homestead built in 1915 located at the eastern rim of the proposed SAR open cut. We propose to undertake archival recording of the homestead and a range of associated buildings before construction commences.

Visual amenity

We've designed the project to preserve visual amenity to the greatest extent possible. There are two main structures that will be visible from outside the project site.

The principal landform will be the waste rock emplacement in the vicinity of the open cut. As we described in our previous newsletter, this progressively rehabilitated landform has been designed to reside more sympathetically in the landscape. It incorporates the principles of geomorphic design and is intended to mimic, to the extent practicable, a "natural" landform.

The outer section of the waste rock emplacement will be constructed and rehabilitated first, providing a visual shield for ongoing mining activities.

We'll also construct and revegetate an amenity bund to shield observers to the south, west and north of the project site from the majority of mining-related activities.

Observers to the east would be able to observe sections of the site from elevated vantage points, including the Kyalite Road overpass.

We've created a range of photomontages taken from key locations identified by surrounding landholders, as well as from publicly available vantage points.

These will be shared with immediate neighbours prior to being made more widely available for the remainder of the community.



**Highway Location 1:
Before mining**



**Highway Location 1:
After mining**

**Highway Location 2:
Before mining**



**Highway Location 2:
After mining**



Soils, Agriculture and Land Capability

The soils assessment identified six different types of soils across the project site. Three of these have been determined as suitable for rehabilitation purposes – that is, exhibiting low erodibility and/or suitable for using as topsoil for sowing vegetation.

The agricultural land capability has been determined to be a mixture of Class 4 (moderate capability) and Class 6 (low capability) land. The final rehabilitated landform would include a similar mix of land capabilities.

The average agricultural carrying capacity across the site is approximately 3.1 dry sheep equivalent (DSE/Ha). To offset the loss of agricultural land to the project, we're committing to improving the agricultural capability of the residual land to ensure overall productivity is greater after mining than pre-mining. We propose to undertake a range of works to increase the carrying capacity by approximately 5% per year to achieve a final carrying capacity of approximately 6.0DSE/Ha by 2035.

Economic

The purpose of the Economic Impact Assessment is to show in detail how the TGEP will benefit the local residents of Tomingley, Peak Hill and the wider area, as well as the state of NSW as a whole. It has been carried out in close consideration of the Social Impact Assessment.

Some of the findings include the creation of additional local jobs and extended job security to beyond the currently approved end of mining in 2025. Additionally, consultants have estimated a benefit to NSW of approximately \$624.5M.

Social

The Social Impact Assessment is ongoing, with the current round of consultation and engagement intended to feed back into the assessment. Overall, we anticipate being able to manage the social impacts, and have committed to working closely with affected landholders to ensure we minimise our impacts on them and their lifestyle.

Biodiversity & Agriculture

Fuzzy Box tree planting

To get a head start on biodiversity improvements of the residual land associated with the Tomingley Gold Extension Project, Alkane has embarked upon a tree planting program.

The first day of planting took place on 23 August, involving a joint effort by members of Alkane's exploration and TGO teams, as well as the Toongi Pastoral Company (a subsidiary of Australian Strategic Materials (ASM)).

The team braved howling wind and drizzling rain to plant 850 Fuzzy Box seedlings on the "Kenilworth", "Devonish" and "Rosewood" properties.



Jon Lamont showing how easy it is to plant trees with a Pottiputki

The trees were planted using Pottiputkis (Finnish design), or shovels in the harder ground. After a further 70mm of rain overnight, a very good establishment success is expected.

Fuzzy Box is a locally uncommon species in central western NSW and as such is mapped as an Endangered Ecological Community.

The species would have been more common before European settlement, but would have been restricted to the drainage lines around Tomingley that receive waters from the Goobang National Park. Much of its former extent has been cleared for agriculture.

Because 2018 was a severe drought year, there was no Fuzzy Box seed available for collection locally. We had to fall back to supply from **Diversity Native Seeds**, who collected the Fuzzy Box seeds from around Gilgandra.

We relied on the expertise of **Narromine Transplants** to establish the trees as seedlings in trays of 40.

Farming at TGEF

Since Alkane acquired the properties required for the Tomingley Gold Extension Project in 2020, the agricultural land has been farmed by the Toongi Pastoral Company (TPC). Overseen by Farm Manager, Fergus Job, TPC has been farming the residual land associated with the Dubbo Project (owned by Alkane's former subsidiary, ASM) since 2016.

We have made the commitment to continue farming the land outside the project footprint. TPC is tasked with improving the productivity of the non-mining land to compensate for the land within the project footprint that will either be temporarily or permanently removed from agricultural production.

TPC has taken sheep on agistment from two local operators and has a cropping and pasture improvement program underway. TPC's own sheep will likely be shorn in the Eulinda Park shearing shed in October.



Toongi Pastoral Company ewes and lambs on Old Thornycroft. Photo taken 23 August 2021.

Community updates

Clontarf Foundation Employment Forum

We were delighted to participate in and support the Clontarf Foundation NSW Central West Employment Forum, held in Dubbo on 27 July. The face-to-face event was held under COVID-safe conditions, involving the Clontarf Academies from Dubbo and Wellington. Esther Williamson represented Alkane at the forum.

New CCC members

We welcome two new members to the Community Consultative Committee (CCC), following the resignation of long-standing CCC member Sallie McGaw.

Amee Dennis - lives to the north of Tomingley village on the Newell Highway and operates "Quentin Park Alpacas" with her family.

Toni Clark - has lived with her husband on the family farm, which is located on Kyalite Road, since 2004. They operate their agricultural enterprise and a kelpie stud. She has also been an active member of the local community by contributing to events such as the annual Tomingley Picnic Races.

We welcome both Amee and Toni to the TGO CCC and look forward to working with them into the future, as they continue to assist with the CCC's function of providing a conduit between TGO and the local community.

Community Fund

Due the impact of the COVID-19 state-wide stay at home public health orders, the advertising for the second round of applications for the TGO community has been delayed. The second round of applications will now be opened from Monday 11 October through to Friday 22 October. Application forms are on the Alkane website.

Supplier Spotlight: Narromine Transplants

Established as a vegetable seedling nursery by the Yates Seeds Group in 1982, **Narromine Transplants** commenced the production of forestry seedlings in 1992. Since then, the nursery has evolved to pure forestry and is now one of the largest containerised tree, fruit and nut seedling growers in Australia.

A recognised leader in the industry, Narromine Transplants has the capacity to supply 18 million tree seedlings annually. The innovative team offers in-depth experience and expertise in forestry, vegetation and other production.

We thank them for contract-growing our trays of Fuzzy Box seedlings - 850 are now planted out at the TGEP project site.



Contact Us

You can find out more information about Alkane Resources and the Tomingley Gold Project on our website:
www.alkane.com.au

Or you can contact our 24-hour Community Information line:
02 6882 1661