



**TOMINGLEY**  
**GOLD OPERATIONS PTY LTD**  
(A wholly owned subsidiary of Alkane Resources Ltd)

# Tomingley Gold Operations Bushfire Report



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## TABLE OF REVISIONS

Revision Number	Revision Date	Prepared by	Approved by	In consultation with	Comments
Revision 1	11/10/2023	LM		NSW RFS	Previous bushfire reports have been included in both the 2011 Environmental Assessment and the 2021 Environmental Impact Statement

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## 1 Introduction and Scope

This Bushfire Report has been developed in accordance with the conditions of Development Consent SSD9176045, granted on 21 February 2023 for the development of the Tomingley Gold Extension Project (TGEP). As the Development Consent will also cover existing operations, this Bushfire Report will be written to include both TGEP and the existing site and all operations associated with both, henceforth referred to as Tomingley Gold Operations (TGO).

Previous Bushfire Assessments for TGO have been undertaken by R.W. Corkery (RWC) as part of the 2011 *Environmental Assessment* for the TGO Mine and can be found within Section 4.13.4 of that document. At the time, the TGO Bushfire Assessment was undertaken in accordance with *Planning for Bushfire Protection 2006 (RFS, 2006)* and the *Narromine Local Environmental Plan 1997*. The results of the TGO Bushfire Assessment were used to guide the development of the approved *Biodiversity Management Plan* and various emergency management procedures for the TGO Mine Site.

As part of the 2022 *Environmental Impact Statement* written for TGEP, another Bushfire Assessment was developed by RWC in accordance with *Planning for Bushfire Protection 2019 (RFS, 2019)* covering the new southern portions of the site.

This document has been developed considering existing bushfire reports that have been produced on previous occasions.

## 2 Site Details

Site details are included below in **Table 1**.

**Table 1: Site Details**

Address	55
Lot/DP	LOT 1 DP 254193, LOT 2 DP 254193, LOT 176 DP 722842, LOT 43 DP 755093, LOT 44 DP 755093, LOT 86 DP 755093, LOT 127 DP 755093, LOT 157 DP 755093, LOT 169 DP 755093, LOT 175 DP 755093, LOT 103 DP 755110, LOT 104 DP 755110, LOT 105 DP 755110, LOT 112 DP 755110, PART LOT 122 DP 755110, LOT 160 DP 755110, LOT 161 DP 755110, LOT 162 DP 755110, LOT 163 DP 755110, LOT 1 DP 820746, LOT 7003 DP 1020605, LOT 1 DP 1151198, PART LOT 2 DP 1151198, PART LOT 3 DP 1151198, LOT 7300 DP 1151814, LOT 2 DP 1157935, LOT 1622 DP 1178801, LOT 1623 DP 1178801, LOT 3 DP 1213503, LOT 4 DP 1213503, LOT 101 DP 1271511, LOT 1 DP 1273565, LOT 2 DP 1281392, LOT 3 DP 1281392
Zoned	All lots are RU1 Primary Production
LGA	Narromine Shire Council

### 3 Legislative Context

Condition B82 (a) stipulates:

*Prior to the commencement of construction, the applicant must prepare:*

*A Bushfire Report, prepared in accordance with Planning for Bushfire Protection (RFS, 2019), in consultation with the NSW Rural Fire Services.*

The objectives of *Planning for Bushfire Protection 2019 (RFS, 2019)* that have been considered in this assessment, are to:

- afford occupants of any building adequate protection from exposure to bushfire;
- provide for a defensible space to be located around buildings
- provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent direct flame contact and material ignition;
- ensure that safe operational access and egress for emergency service personnel and residents is available; and
- ensure that utility services are adequate to meet the needs of fire fighters (and others assisting in bush firefighting)

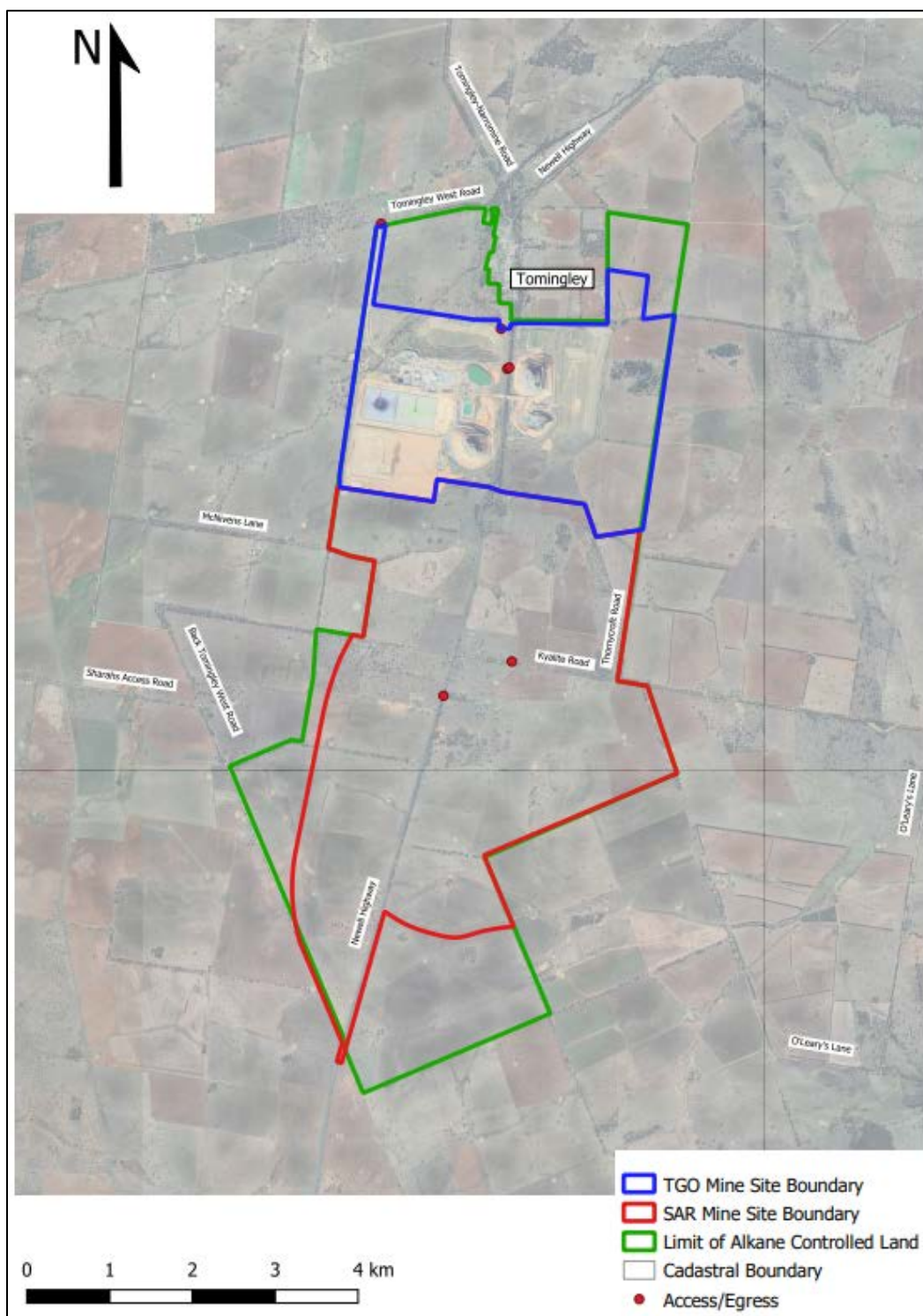
### 4 Bushfire Hazard Assessment

#### 4.1 Location

The TGO site (including non-mining land) is located directly adjacent to the town of Tomingley, approximately 50km South of Dubbo in Central Western NSW. Primary access to the site is via Tomingley West Road, though there are several emergency access points that lead into the site. **Figure 1** shows the location of site and current access/egress points.

The local bushfire prone land map depicts the site as containing both Category 1 and 2 Vegetation, and the associated 100 metre and 30 metre buffers zones. While the site contains these vegetation categories, all buildings and key infrastructure is located outside of the buffer zones. **Figure 2** details the current bushfire prone land mapping of site.

**Figure 1: Site Location and Access/Egress**







## 4.1 Vegetation and Slope

Vegetation structure of the site has been assessed by both the EA and EIS out to a distance of 140m of planned key infrastructure. In this area, the majority of land has been cleared of vegetation for farming purposes with only small patches of woodland remaining. For the purposes of this Bushfire Report, the vegetation has been assessed as Grassy and Semi-Arid Woodland (including Mallee).

The slope around site has also been assessed (again by both the EA and EIS) out to a distance of 100m from planned key infrastructure. The landscape is consistently flat in all directions from site, and as a result the effective slope has been taken to be between 0° and 5°

## 4.2 Asset Protection Zone

The Asset Protection Zone (APZ) has been determined using the values assumed above to be 50m from TGO site infrastructure. This has been determined from Table A1.12.1 from Appendix 1 of Planning for Bushfire Protection 2019, which is included below as **Table 2**. No further assessments have been conducted to influence this APZ.

**Table 2: Minimum distances for APZs**

KEITH VEGETATION FORMATION	EFFECTIVE SLOPE				
	Up slopes and flat	>0°-5°	>5°-10°	>10°-15°	>15°-20°
	Distance (m) from the asset to the predominant vegetation formation				
Rainforest	38	47	57	69	81
Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	67	79	93	100	100
Grassy and Semi-Arid Woodland (including Mallee)	42	50	60	72	85
Forested Wetland (excluding Coastal Swamp Forest)	34	42	51	62	73
Tall Heath	50	56	61	67	72
Short Heath	33	37	41	45	49
Arid-Shrublands (acacia and chenopod)	24	27	30	34	37
Freshwater Wetlands	19	22	25	28	30
Grassland	36	40	45	50	55

## 4.3 Services and Emergency Management

TGO maintains the capability to manage small fires on site as part of Emergency procedures. Current fire suppression infrastructure and equipment within site includes:

- Fire extinguishers and suppression systems located throughout the processing plant and buildings, including fire extinguishers located in all mine-related vehicles;
- A water cart with a fire cannon and fire suppressant foam capability;
- A network of fire hydrants in a ring around the Processing Plant; and
- A system of firebreaks between the principal operational areas of the TGO Mine Site and local residences.

In addition to the above, TGO also has a large open water reservoir capable of providing a consistent supply of water in the event of an emergency.



TGO maintains an Incident Response Team provide limited fire-fighting capability within and around the vicinity of the Mine Site. The objective of the team is to provide a 'rapid-response' measure to account for the anticipated time for the NSW Rural Fire Service to respond to incidents. Further reduction in fire-related risks is provided through general operational practices such as designed smoking areas and the maintenance of vehicles and plant to ensure they are operating in a safe and reliable manner.

## 5 Management and Mitigation Measures

TGO has reviewed the existing bushfire management operations (including within the Emergency Management Plan and Biodiversity Management Plan) as part of the TGEF development. Details below are drawn from site policies including both plans.

All management of vegetation within site is conducted in accordance with the existing and approved Biodiversity Management Plan. The site includes significant areas of vegetation that require management of fuel loads as part of ongoing fire-risk reduction. Fuel reduction, primarily through the use of controlled grazing by domestic stock, is used by TGO as an effective measure to control fuel loads.

In addition to the above, the following management and mitigation measures will be undertaken across site to reduce the risk of a local bushfire event.

- Establish and maintain an APZ of at least 50 metres around the buildings of both the TGO and SAR administration area.
- Monitor and reduce fuel loads within the Asset Protection Zone as required.
- Undertaken monitoring and reduction of fuel loads within the TGO site.
- Maintain all roads and tracks within site to ensure safe access and egress in the event evacuation is required.
- Ensure training is provided to selected site personnel in relation to specific firefighting tasks and procedures.
- Ensure site-specific Emergency and Evacuation Management Procedures are kept up to date.
- Store all hydrocarbons, waste oils and explosives within designated areas.
- Facilitate access to site for Rural Fire Service equipment and personnel, including access to standpipes and water filling points, in the event of a fire emergency.
- Fully comply with the requirements of the Rural Fire Service and other emergency services in the event of a fire emergency.
- Consult regularly with the Rural Fire Service.

Management and mitigation measures will continue to be reviewed in any respective plans that they are a part of. If *Planning for Bushfire Protection 2019* is updated by the Rural Fire Service, TGO will consider what changes, if any, are required to ensure compliance and to mitigate the risk of bushfires on site.

## 6 Conclusion

TGO considers that the site meets the requirements of *Planning for Bushfire Protection 2019* for several reasons. In Section 3 a series of goals for the report were considered and these are noted to have been achieved in **Table 3** below.

**Table 3: Bushfire Planning Goals**

Goal	Comments
Afford occupants of any building adequate protection from exposure to bushfire	Achieved.  The 50m APZ and minimal vegetation around site will reduce the risk of bushfires and provide for a space between fire hazards and occupants of buildings.
Provide for a defensible space to be located around buildings	Achieved.  The 50m APZ is determined to be sufficient given the slope and vegetation, and provided it is maintained will act as an appropriate defensible space.
Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent direct flame contact and material ignition	Achieved.  The 50m APZ provides a direct space between infrastructure and vegetation. In addition, the grazing of surrounding land will reduce fuel loads thus minimizes the hazard of fire approaching site.
Ensure that safe operational access and egress for emergency service personnel and residents is available	Achieved.  There are sufficient access points into site, that in the event of a fire, it is very unlikely all will be obstructed in the event of a fire, thus allowing for access and egress in the event of emergency.
Ensure that utility services are adequate to meet the needs of fire fighters (and others assisting in bush firefighting)	Achieved.  On site fire suppression capabilities are well developed and the ability to supply the Rural Fire Service with water in the event of an emergency ensures that site has good firefighting capacity.

Thus this report demonstrates that the site is compliant with *Planning for Bushfire Protection 2019* and so long as the measurement actions above are undertaken, no further work is required to manage or prepare for bushfire hazards.