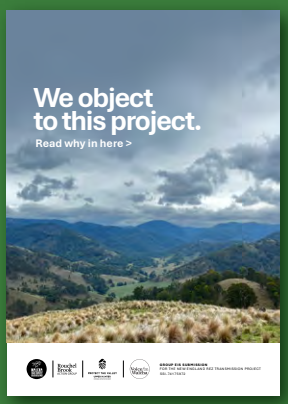
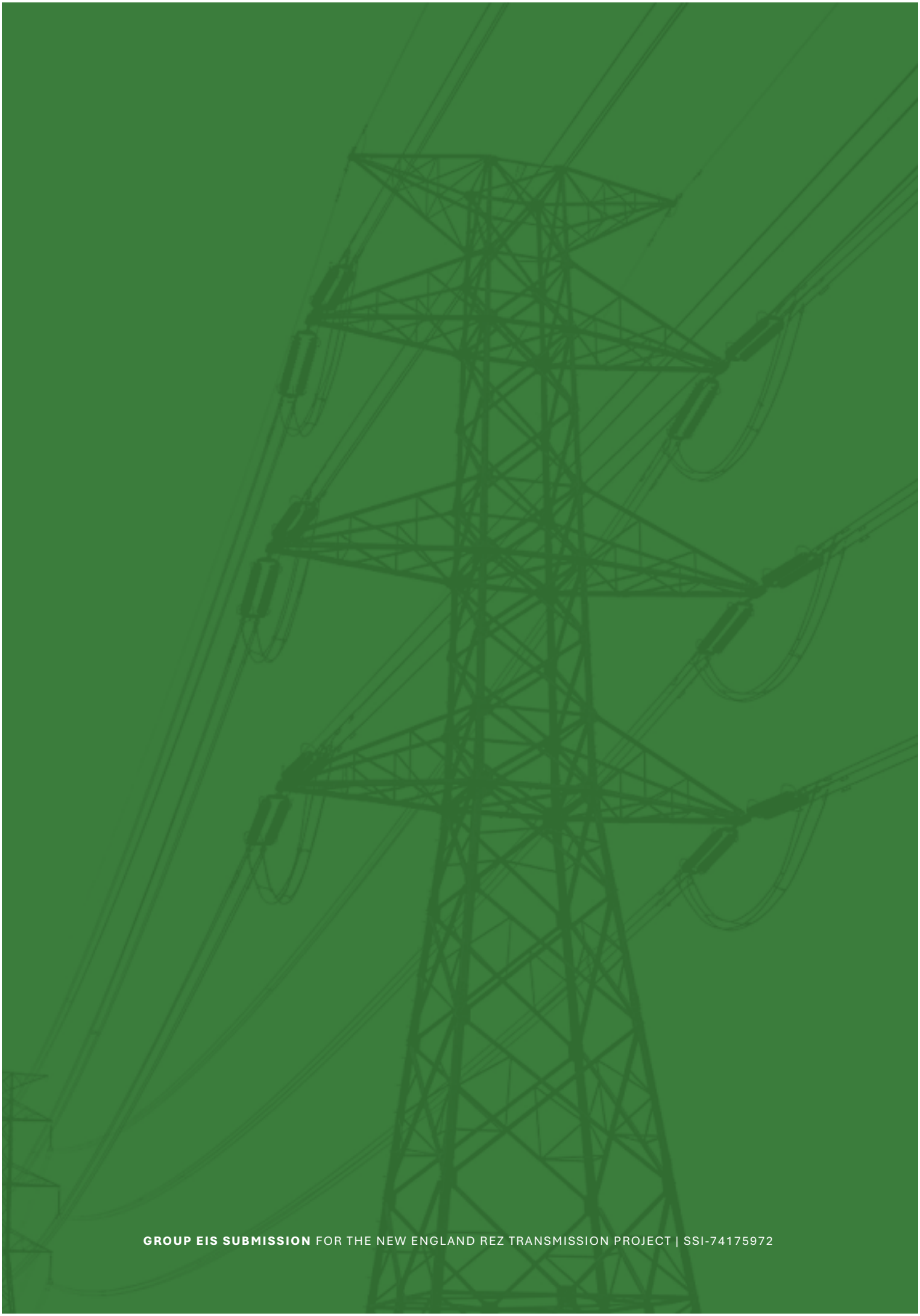
SECTION **5**

Bushfires

THIS IS **ONE** SECTION OF **TWENTY TWO,**
THAT FORMS PART OF A LARGER GROUP SUBMISSION
TO THE NEW ENGLAND REZ TRANSMISSION PROJECT
SSI-74175972



WALCHA HIGH COUNTRY GUARDIANS | Rouchel Brook ACTION GROUP | PROTECT THE VALLEY UPPER HUNTER RESPONSIBLE INFRASTRUCTURE GROUP | Voice for Walcha



GROUP EIS SUBMISSION FOR THE NEW ENGLAND REZ TRANSMISSION PROJECT | SSI-74175972

SECTION 4

Bushfires

Key issues we have found ...

Fire crews face access barriers	The EIS does not demonstrate how crews will reach fires beyond construction works, leaving emergency access and public safety unresolved.
Fuel assumptions lack field checks	Desktop fuel estimates lack field checks of current vegetation and farming practices, leaving local fire risks dependent on unverified assumptions.
Local brigade consultation remains unproven	EnergyCo claims local engagement, yet the community disputes brigade consultation and demands evidence that firefighting knowledge shaped assessment and design.
Local fire history is incomplete	An incomplete record of recent fires obscures how crews access threatened areas, weakening the evidence for safe emergency response planning.
Drought flight modelling needs scrutiny	The aviation study assumes a 276 metre water level; communities need clear evidence of safe operations throughout drought and drawdown.
Powerlines threaten aerial firefighting	Recorded Glenbawn flight paths vary with wind and visibility; transmission lines could obstruct manoeuvring space needed for safe water scooping.

Walcha High Country Guardians | Rouchel Brook Action Group | Protect the Valley Upper Hunter | Voice for Walcha

Read in more detail >



> On fire, Walcha Plateau

SECTION **5**

Bushfire Risk

Part A | Environment and Community

EXECUTIVE SUMMARY

Our community considers that the New England REZ Environmental Impact Statement (EIS) fails to adequately demonstrate how the project's construction will ensure safe firefighting operations within and around the transmission lines.

The EIS contains numerous flawed assumptions based on inaccurate and inadequate research. EnergyCo has failed to show the necessary local knowledge needed to assess the ramifications of the invasive industrialisation of prime agricultural land.

Our principal concerns are:

1. **EIS fails to assess impact of bushfire mitigation surrounding project site.** EnergyCo has assessed risk 'to' and 'from' the project but fails to assess risk of how the transmission lines will affect firefighting operations in its vicinity, both during and after intended construction.
2. **Inaccurate assessment of vegetation in and around the project.** EnergyCo has based review of vegetation and fire prone areas on outdated resources as well as failing to research local land use which affects fire risk.
3. **Inadequate consultation with RFS.** EnergyCo has failed to consult with local RFS brigades nor provided meeting outcomes with RFS.
4. **Local bushfire history knowledge is greatly lacking.** EnergyCo demonstrates a lack of knowledge in bushfire history which places any assumptions of fire mitigation in question.
5. **Aerial firefighting capabilities via Lake Glenbawn severely hindered.** EnergyCo has failed to correctly assess the risks around the construction of transmission lines near this water resource.

Our community asks DPHI to require EnergyCo to demonstrate how bushfire mitigation can be conducted in a safe and effective manner in and around the vicinity of the proposed project, both during and after the intended construction.

Where acceptable outcomes cannot be demonstrated, the project must be modified accordingly. Future management plans cannot substitute for the evidence required to establish that the project is environmentally acceptable.

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1 | EIS fails to assess impact of bushfire mitigation surrounding project site.

The SEARs requires EnergyCo to assess the risks to public safety, 'paying particular attention to bushfire risks, emergency egress and evacuation'. EnergyCo has failed to address bushfire mitigation practices for bushfires within the vicinity of the project. All assessments are concentrated on bushfire risk 'to' and 'from' the project. Although mentioned, there has been no assessment on how bushfires in the vicinity of the project will be contained where the construction site obstructs access to said fires.

With the proposed project to be built in the vicinity of households, this limited scope does not address the SEARs requirement to assess the risk to public safety. EnergyCo acknowledges that all risk assessments have been generated from desktop studies. The broader community can confirm this as EnergyCo has made not engaged with local landholders or local RFS brigades who would be called upon to support any firefighting efforts throughout and after the construction period of the proposed project. EnergyCo has failed to address how ground crews will access land beyond the proposed project site where access will be severely limited during construction.

EnergyCo refers to assessing public safety through the RFS Bushfire Risk Management Plan (BFMP) for each RFS area. This project straddles two RFS areas, being the Liverpool Plains and New England. Neither RFS BFMP refers to measures to be taken when conducting firefighting activities near transmission lines in general; nor specifically to this project. It is stated clearly in the technical report that *'In considering potentially at-risk assets from a public safety dimension (as required by the SEARs) GHD has referred to the relevant BFRMPs'*, but states in section 4.2 Elevated bushfire risk communities, that all relevant BFMPs are currently 'under review'. This is in direct contradiction with each other.

Source: DPHI, Planning Secretary's Environmental Assessment Requirements, SSI-74175972, 7 April 2026, p. 3. Amended SEARs.pdf
Source: Technical Report 12 Bushfire Risk Assessment.pdf p. 6
Source: https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0004/307498/Liverpool-Range-Bush-Fire-Risk-Management-Plan-Final.pdf, 11:40am, 8.11.26
Source: https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0014/2390/New-England-BFRMP.pdf, 11:41am, 8.11.26

> POSITION SOUGHT

The SEARs requirement regarding public safety has not been met as there has been insufficient study done in identifying implications to public safety of bushfires around the project. In addition, EnergyCo has referred to RFS BFRMPs for both New England and Liverpool Plains as supporting documentation despite neither referring to the project.





2 | Inaccurate assessment of vegetation in and around the project.

EnergyCo has based its entire fire mitigation risk assessment on outdated data and a broad assumption of land use. As stated in the Technical Report 12 Bushfire Risk Assessment in section 3.3 Key Data Inputs, assessments were made using data from a NSW RFS document titled 'Comprehensive Vegetation Fuel Loads (NSW RFS, 2019)' which draws data and modelling from 2004. It is also acknowledged that no field sampling has occurred.

The EIS also fails to take land use into account when determining fire risk. Farming practices include crop harvesting, rotational grazing, feedlot enterprises as well as carbon offsetting have been introduced since the 2004 data and modelling, meaning that all of the EIS forecasting regarding vegetation and its related fire risk is alarmingly incorrect.

The Bureau of Meteorology (BOM) data is fundamentally used for Bushfire Attack Level (BAL) assessments in NSW; data that has recently been proven to be inaccurate. BAL assessments consider regional fire weather history as a base and can therefore no longer be considered in any serious study.

> POSITION SOUGHT

EnergyCo needs to use more accurate and recent data in order to meet the requirements of this section. The broad approach to assessing fire risk within the region in terms of its vegetation of this project will place the public at great risk. The broad assumptions made from any current data used by EnergyCo need to be revised in order to meet any SEARs requirement in this area.

3 | Inadequate consultation with RFS.

EnergyCo maintains that 'Consultation outcomes have informed further technical assessment and design refinement, including consideration of aerial operations alongside broader bushfire management requirements' in the EIS Technical Report 12 on page 9.

The community argues the current design refinement should be deemed null and void as EnergyCo has failed to consult with local RFS brigades, local Civil Aviation Safety Authority (CASA) approved aerial firefighting instructors and affected landholders. The community also has concerns that EnergyCo has inadequately communicated with the relevant RFS command centres.

The feedback given to EnergyCo from CASA approved aerial firefighting instructors is NOT in alignment with the final assessment in the EIS. One submission stated that transmission lines need to be, at a minimum, four nautical miles from Lake Glenbawn in order for safe aerial firefighting operations to continue. This assessment has been fundamentally ignored.

In the EIS Technical Report 12, it states 'EnergyCo has sought to engage with local RFS brigades and Fire Control Centres, as well as individual landowners and Bendemeer Community Group to ensure local knowledge and operational experience is captured.' This is blatantly misleading as EnergyCo has not approached any local RFS brigades for consultation, nor has it met with individual landowners. Furthermore, highly significant 'technical assessment and design refinement' has then been attributed to these non-existent consultations.

Such blatant disregard for local knowledge and apparent deception in ignoring local expertise will seriously compromise the safety of RFS volunteers and all members of the community engaged in firefighting activities.

> POSITION SOUGHT

EnergyCo must demonstrate proactive consultation with all relevant stakeholders of the firefighting community and show that feedback has been used to adjust the project where necessary.

4 | Local bushfire history knowledge is greatly lacking.

EnergyCo's documentation of local bushfires is alarmingly incomplete. There have been several fires within the proposed project over the last ten years, as well as those within close proximity. Many of these bushfires necessitated travel by firefighters through where the proposed project is to be constructed. As it currently stands, EnergyCo has not adequately considered firefighting vehicles travelling through the proposed construction corridor during construction.

> POSITION SOUGHT

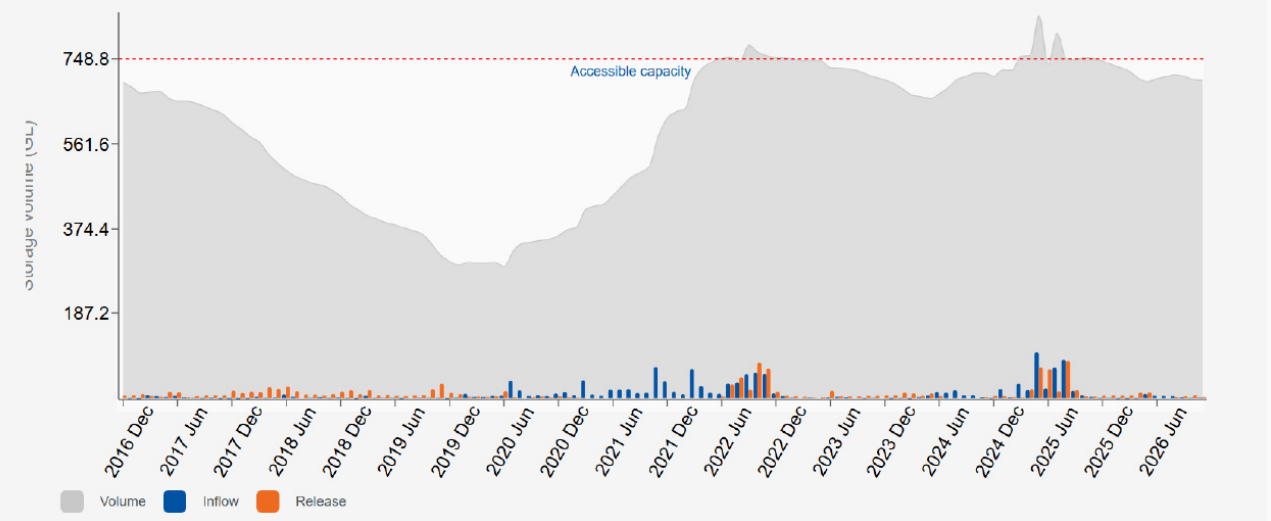
EnergyCo has limited understanding of local bushfire history which needs to be addressed in order for lifesaving assessments to be formulated. Once again, the SEARs requirement regarding public safety is not met.

5 | Aerial firefighting capabilities via Lake Glenbawn severely hindered.

5.1 A critical failure to assess drought conditions

The EIS aviation assessment adopts a Lake Glenbawn water level of 276 metres Australian Height Datum (AHD), approximately equivalent to the dam being 100% full. Section 4.5(h) of the Lake Glenbawn Aviation Technical Note expressly identifies this as the assumed water level unless otherwise specified. The assessment then relies on its flight-path calculations to conclude that the proposed transmission alignment will not adversely affect the safety of water-scooping operations.

Using a full dam as the basis for these conclusions, without demonstrating that they remain valid at realistic drought levels, is a serious error of judgement by the EIS authors. A full dam cannot be assumed during a bushfire emergency. Prolonged dry conditions can leave the water surface substantially lower precisely when communities need effective aerial firefighting.



> Graph 1. Glenbawn Dam Historical Storage Volume, Inflow and Release
Source: https://waterinsights.waternsw.com.au/12801-hunter-regulated-river/storage#AMSRecent

Low storage is a foreseeable operating condition that must be assessed. EnergyCo's own published information acknowledges that Glenbawn's storage varied between approximately 40% and 55% during 2019–2021. An assessment intended to protect firefighting operations must demonstrate safety under those conditions.

The published Glenbawn Dam map shows the scale of the change in water elevation:

Glenbawn Dam Volume and AHD comparison			
Dam Volume	100%	60%	30%
mADH	276	260	248.5

Source: https://www.nsw.gov.au/sites/default/files/2021-07/16-glenbawn-dam.pdf

These are substantial differences in the elevation of the surface from which aircraft collect water and begin climbing, and towards which they descend on approach.

5.2 Lower water levels threaten clearance and usable scooping distance

The consequences of this assumption are particularly serious in the assessment of operations at the eastern end of the lake. One worked approach in the technical note places the aircraft at approximately 385 metres AHD when crossing the transmission alignment, above a tower reaching 354.1 metres AHD. That provides approximately 31 metres of vertical separation, close to the assessment's adopted minimum of 30.5 metres.

At the assumed full-dam level, this approach provides approximately 871 metres of water-scooping distance. The report identifies an observed average scooping distance of approximately 700 metres for these eastern operations. These calculations depend on the assumed water elevation and the geometry of the approach.

When the water surface falls, the transmission towers and wires remain at the same height. The consequences for the flight path cannot be ignored.

If an aircraft follows the same approach angle towards the same touchdown location on a lower water surface, its calculated approach path also falls. This reduces clearance over the transmission infrastructure and could bring the aircraft dangerously close to the towers and wires, below the minimum separation adopted in the assessment.

If the aircraft instead maintains its clearance above the transmission infrastructure, it must descend farther before reaching the lower water surface. This moves the touchdown point farther along the approach and can consume the distance available for scooping. Falling storage also changes the shoreline, water depth and usable scooping area, requiring the entire operation to be reassessed.

The EIS must establish how safe approach, scooping and departure operations remain possible as the dam falls. The published full-dam calculations do not answer that question. A successful calculation at 276 metres AHD cannot establish that the same operation remains safe when the water surface is 16 or 27.5 metres lower.

This omission undermines the assessment's safety conclusions. It leaves unresolved whether pilots can maintain adequate separation from the transmission infrastructure while retaining sufficient water and distance to complete a safe and effective scoop.

The technical note itself describes its analysis as preliminary and warns that it should "not be relied upon for any decisions relating to actual flight performance and safety". That qualification makes it particularly unacceptable to treat the assessment as sufficient assurance that aerial firefighting will remain unaffected.

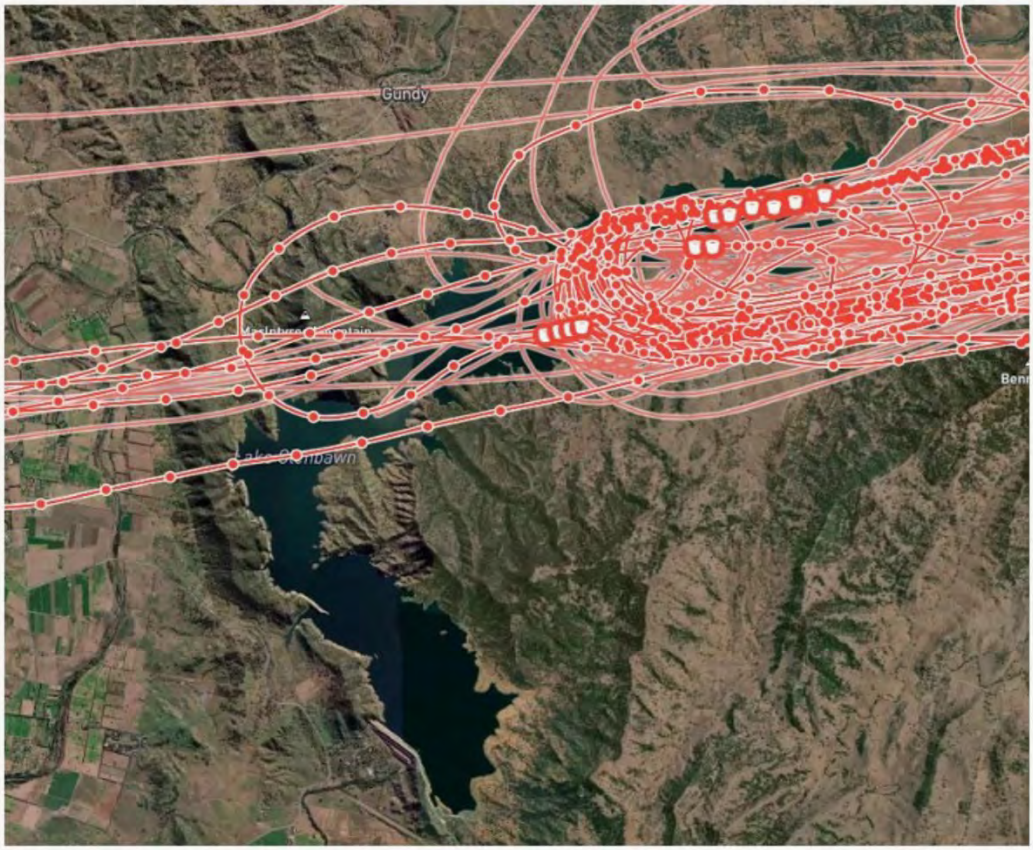
5.3 Experienced pilots' warnings require a substantive response

The operational evidence provided by Harley McKillop reinforces the seriousness of this omission. Mr McKillop is an experienced aerial firefighting pilot, CASA-approved instructor and examiner. His submission describes repeated scooping operations in extreme temperatures, strong winds and smoke, with high workloads and little room for error.

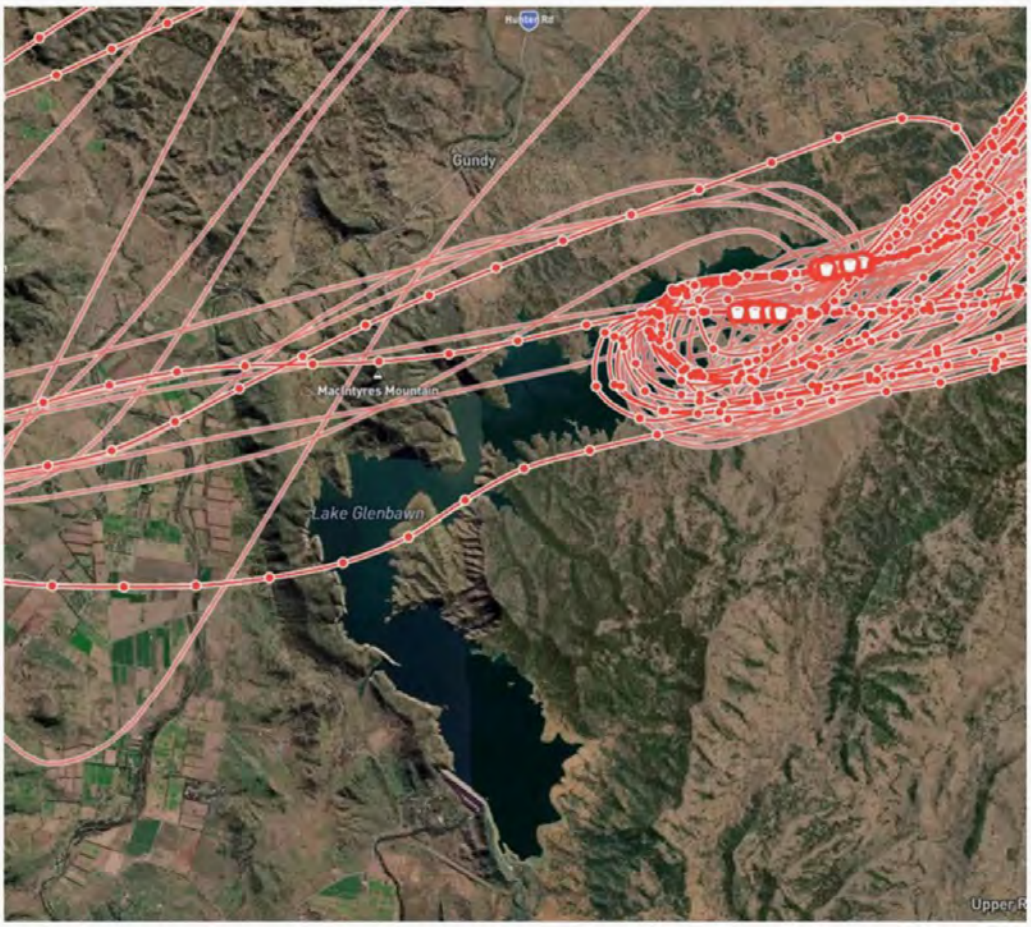
His recorded flights from 1–9 December 2025 demonstrate extensive use of Lake Glenbawn's eastern reaches for approaches, scooping and departures. This evidence shows why an assessment must account for the operating space pilots actually require as conditions change.

Attachment A - Flight tracks and scooping zones for a single aircraft (VH-AP8) for the period 1st to 9th December 2025. The 'bucket' symbol indicates each individual scoop throughout the day.

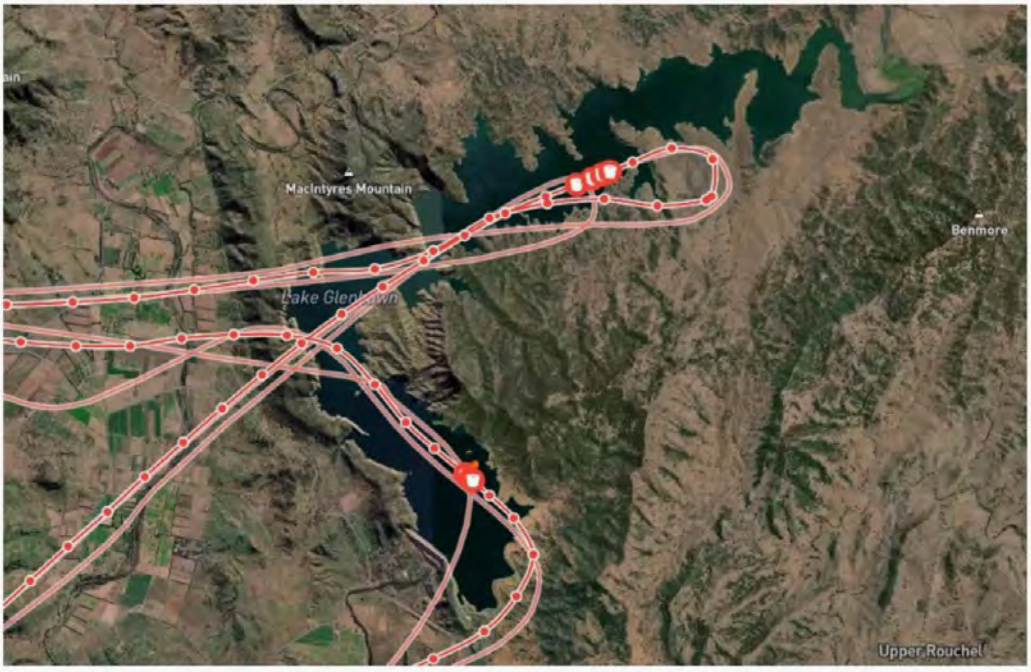
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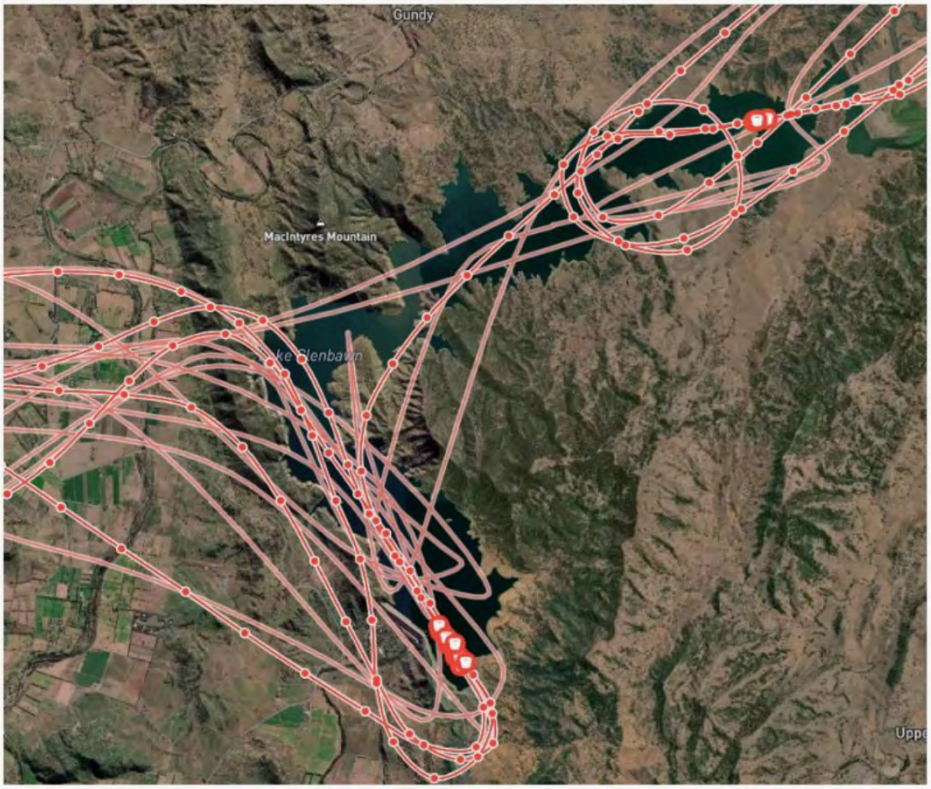
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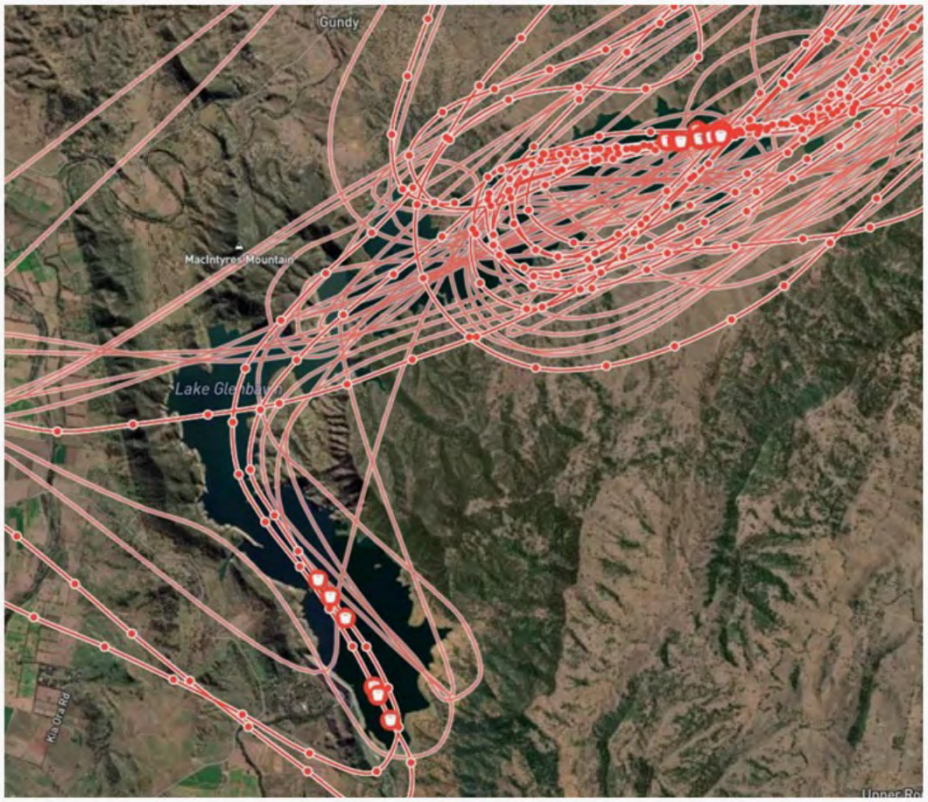
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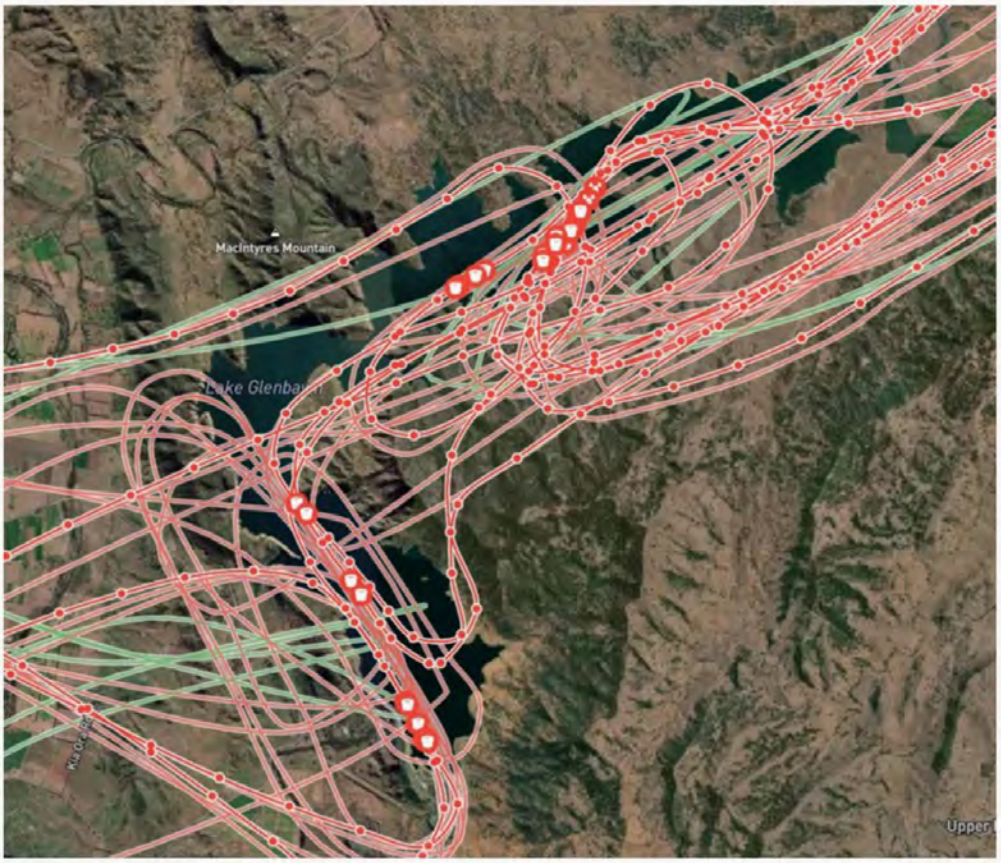
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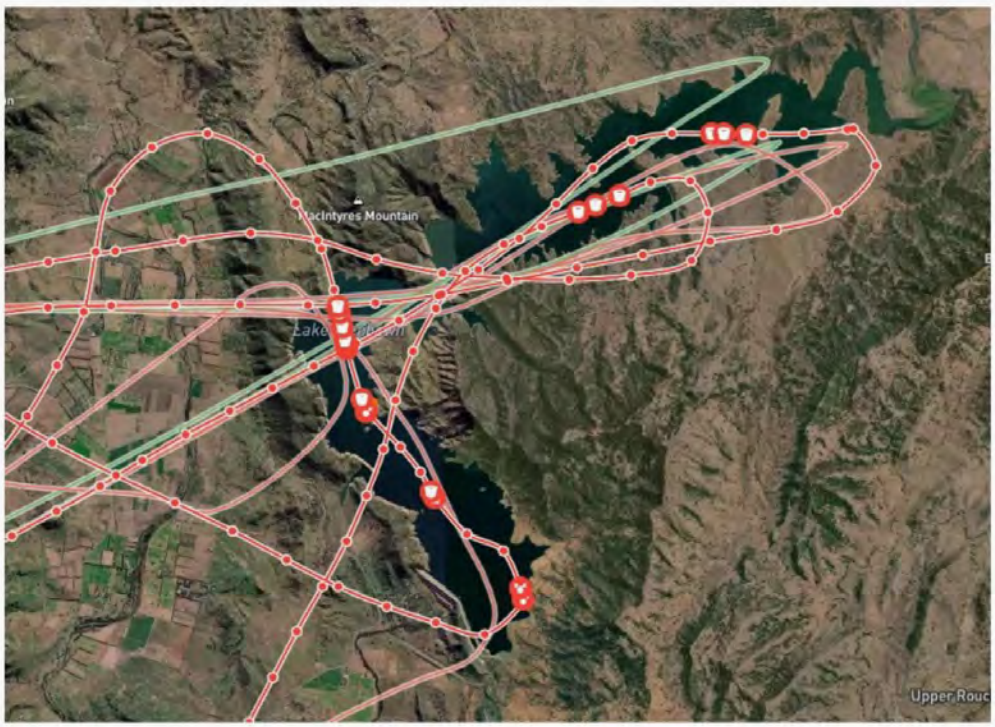
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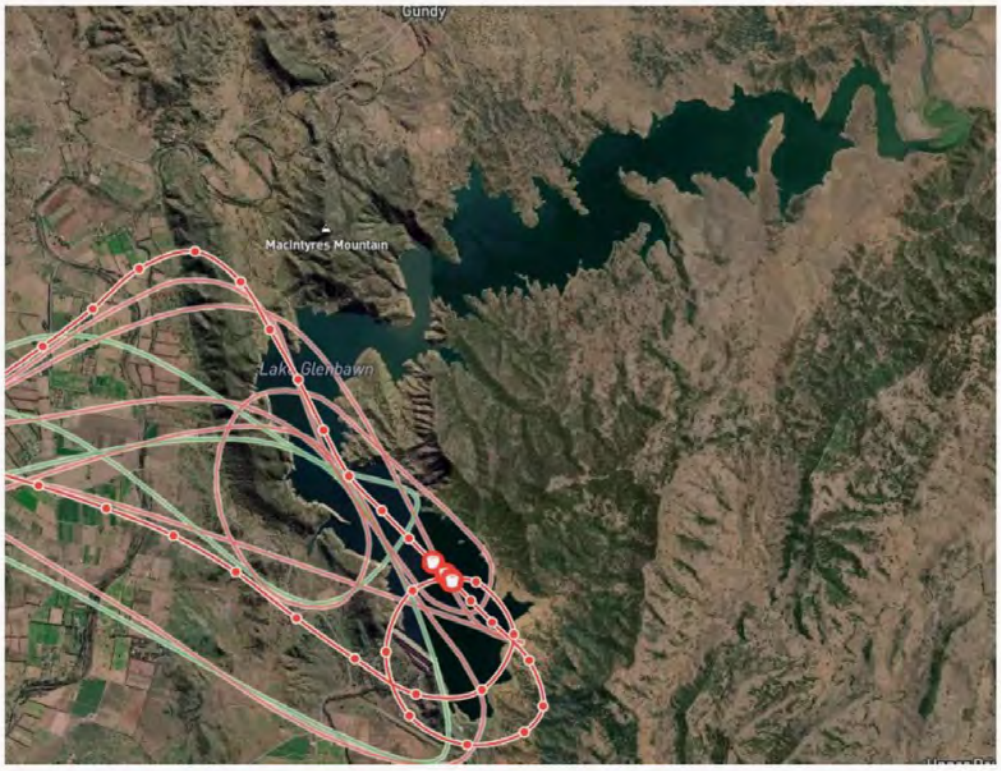
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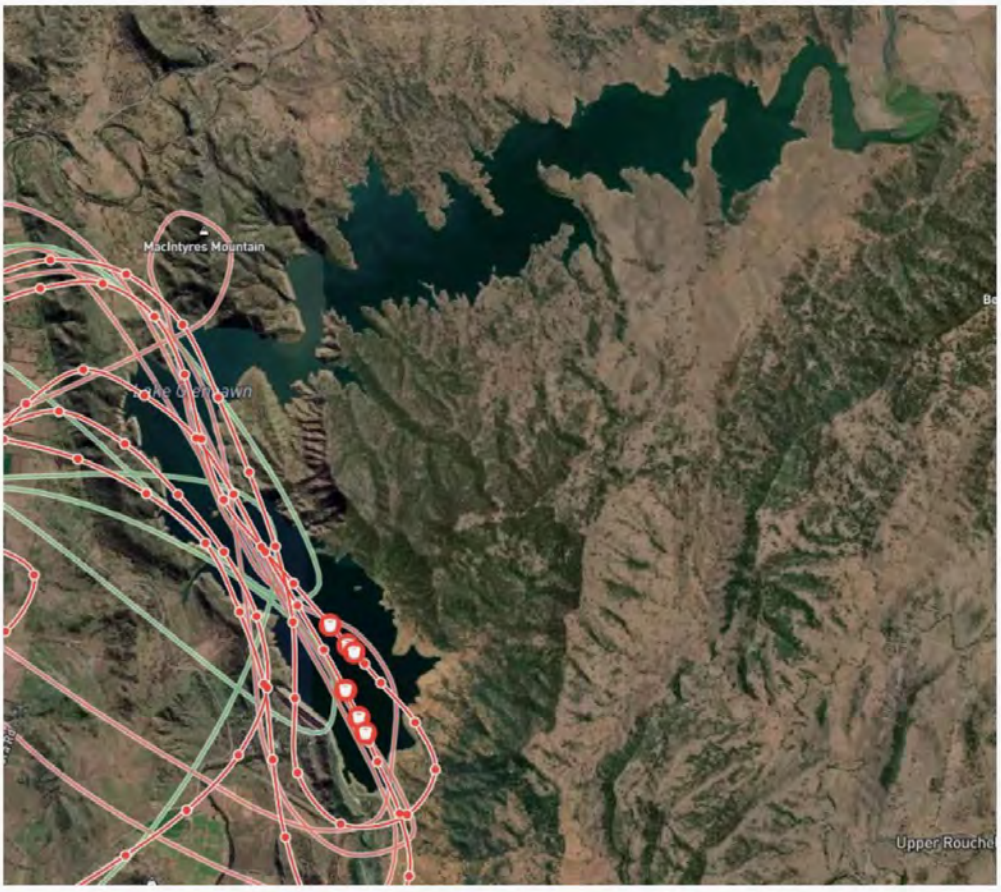
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9/12/2025



Mr McKillop also explains why another dam cannot simply be assumed to provide an equivalent alternative. During the Hunter Road bushfire, wind and operational constraints prevented Chaffey Dam from substituting for Glenbawn despite being geographically closer.

In his submission on the earlier study corridor, Mr McKillop warned that transmission lines crossing any part of Lake Glenbawn, or within four nautical miles of a scooping approach zone, would create a serious incident risk. EnergyCo must demonstrate how the current alignment addresses that expert warning under realistic water levels and operating conditions.

The consequences extend beyond aircraft safety. If pilots must abandon a scooping area, restrict their operations or use a more distant water source, the community may lose firefighting capacity during an emergency. Those consequences must be assessed before the route is accepted.

> POSITION SOUGHT

The current assessment does not adequately demonstrate that safe and effective aerial firefighting can continue throughout foreseeable drought and dam drawdown conditions. DPHI must require EnergyCo to:

1. Publish revised flight-path and water-scooping assessments across a realistic range of storage levels, including historically experienced drought levels, using verified water elevations and corresponding shorelines.
2. Recalculate aircraft clearance, touchdown locations, usable scooping distances, departure paths and turning requirements at those levels, including the performance of aircraft carrying firefighting water loads.
3. Demonstrate whether the eastern scooping area remains usable and assess the consequences of any restrictions, including whether alternative parts of the lake or other water sources can provide equivalent firefighting capacity.
4. Obtain independent review by suitably qualified aviation specialists, with direct involvement from experienced local aerial firefighting operators and the NSW RFS, and publish a substantive response to their concerns.
5. Resolve these matters before determination. Where safe and effective firefighting cannot be demonstrated, change the transmission alignment.

The community should not be asked to accept reduced firefighting protection because the EIS authors assessed a full dam and failed to demonstrate that their conclusions withstand drought. Future management plans cannot repair an inadequate assessment of whether the transmission lines can safely occupy this location.

Bushfire Risk

Part B | Electricity Security

EXECUTIVE SUMMARY

EnergyCo has not quantified the bushfire risk to the transmission line it proposes, or what that risk means for electricity supply. Technical Report 12 (TR12) treats bushfire mainly as a question of ignition and public safety. On the risk to the line itself, it relies on the record of other 500 kV lines in NSW and concludes the risk is "tolerably low". TR12 maps the route's vegetation, terrain and fire history and models indicative fire behaviour, but it does not turn that work into operating consequences: how often and for how long circuits would be lost or constrained, how much generation would be curtailed, and whether supply would stay secure. It is also a desktop study: fuel loads are standard RFS values, and no bushfire-specific field sampling of fuel loads is disclosed in the highest-risk section.

The objection we present is that the project would concentrate the output of an entire REZ, up to 6 GW, in a single shared easement, carrying two parallel double-circuit 500 kV lines, through the most fire-prone country on the route, and that EnergyCo has not tested what happens when that country burns.

It has burnt before. TR12 itself records that the 2019/20 Pages Creek Road fire and the 2002/03 Gulf Gogs complex directly impacted parts of the proposed easement. NPWS fire records show the Pearsons Trail complex burnt from 11 December 2019 to 22 January 2020, and the Pages Creek Road fire from 12 December 2019 to 11 January 2020. The recorded event windows overlapped for about a month, and the final footprints of both fires intersect the published EIS project area. The first-hand account of the Pearsons Trail fire in this submission describes what a fire of that length does to that country.

The central question the EIS does not answer is this: what happens to the line, and to the National Electricity Market, when a fire burns along this corridor for weeks? Specifically:

Derating. How long would AEMO constrain flows on the line, and how much REZ generation would be stranded?

De-energisation. Would the line be switched off for aerial retardant drops or ground crews working the easement, and for how long?

Priority. When firefighting and energy security conflict, which wins, who decides, and under what protocol?

Repair. Can damage be repaired while the fire is still burning in steep, inaccessible country?

Energy security. What would replace the curtailed output, tested across different output levels, fire conditions and outage durations, up to transfers approaching 6 GW?

The Department should not accept TR12 as adequate. A measured, route-specific assessment of bushfire risk to supply, with input from AEMO, the network operator and the NSW RFS, is needed before the project can be determined.

Appendix C in is a first-hand account by Mark Grady, a member of the Niangala Brigade of the NSW Rural Fire Service, of fighting the Pearson Trail Complex fire from 19 to 31 December 2019 along Forest Way, near Hams Corner and Nundle State Forest. This is the section where the proposed lines would run along the top of the Great Dividing Range before turning south towards Barry, and which TR12 itself identifies as the most likely to suffer a significant bushfire. The account records that the fire jumped Forest Way on 28 December and that by 29 December "the entire path of the proposed powerlines was engulfed by fire and out of control".

The account is significant because it shows, on the proposed route itself, the conditions TR12 has not assessed. The fire burnt for weeks in rugged, largely inaccessible country. It was held back by night backburning, bulldozers and helicopters working close to the line of the route, the kind of operations that would raise questions about de-energisation and reclassification if 500 kV lines were present. Access was dangerous: burning trees threatened the roads crews used, and two bulldozer operators were overrun about 20 km from any clearing. Repair crews would face the same conditions. The diarist's view is that, had the lines been there, they would have been destroyed. EnergyCo has not tested whether he is right.

It is also real evidence from the ground, which TR12 does not have. TR12 is a desktop study built on standard fuel tables, mapped fire extents and the record of lines elsewhere. The account shows what those sources cannot: how this fire actually behaved in this country, and how little control anyone had over it. The fire was held for days, then climbed to the top of the range, jumped the road and ran east. Crews were told they had all day to finish a containment line, and within an hour the fire was minutes from overrunning them. Wildfire in this terrain does not follow a plan or a model. An assessment that assumes fires near the lines will be brief, predictable and controllable is not an assessment of this route.

1 | Why bushfire is a supply security issue for this project

The project is not a local line. EIS Technical Report 12 (TR12) states it would provide 2.4 GW of transfer capacity in Stage 1 (2032) and a further 3.6 GW in Stage 2 (2034), a total of 6 GW. The principal export route for that output is the bulk corridor, which the main EIS describes as about 190 km from Central South Hub to Bayswater, with further 500 kV connections between the hubs. (TR12's figure of about 240 km covers all of the dual 500 kV infrastructure between the central hubs and Bayswater, and should not be confused with the bulk corridor.) The proposed bulk corridor places two parallel double-circuit 500 kV lines, four circuits on two tower lines, within a shared easement, typically 140 m wide (EIS Figure 3.3). EnergyCo should demonstrate the consequences of a bushfire affecting one circuit, both circuits on one tower line, or circuits on both parallel lines, and how much capacity would remain through other connections, including the Central Hub B connection to the existing 330 kV network.

That design means the REZ's export is only as secure as the most exposed section of the corridor. TR12 identifies that section itself. It says the highest likelihood of a significant bushfire impacting the easement is between the Barnard River and the south-western edge of the New England Tableland, and that the line descends there from about 1,300 m in Nundle State Forest to about 600 m at the Barnard River. That is a long, steep, forested uphill fire run, which is exactly the setting TR12 says caused transmission damage in 2019-20.

At the southern end, the line terminates at Bayswater, beside Liddell, where existing 330 kV lines out of Liddell tripped in January 2020 after bushfire pollution built up on their insulators (see below).

The SEARs required an assessment of bushfire risk to public safety. TR12 has largely confined itself to that. But a 6 GW connection must also be assessed for what happens to supply when fire comes through. A failure here does not just affect the landholders along the route. It affects every electricity consumer in NSW.

These are not matters to be left to AEMO and the eventual network operator after approval. They are foreseeable consequences of the proposed route and shared-easement design. They affect whether the project can deliver its stated electricity-security benefits, whether firefighting operations would be restricted, and whether a less exposed alignment is required. They must therefore inform the assessment of the project and its alternatives before approval, with AEMO and the network operator providing the necessary technical input.

2 | How TR12 assessed the risk: a desktop study

TR12 is a desktop assessment. It states that, apart from fuel surveys at Moonbi, Limbri and Chaffey, no project-specific field survey was carried out, because publicly available data was "deemed adequate". Fuel loads were taken from the NSW RFS standard values in its 2019 *Comprehensive vegetation fuel loads* fact sheet, and no field sampling of fuel loads was undertaken.

TR12 discloses no bushfire-specific field sampling of fuel loads in the section it says carries the highest likelihood of a significant bushfire: the steep, forested and plantation country from Nundle State Forest down to the Barnard River, and on through Ben Halls Gap and Pages Creek. TR12 itself describes that country as "conducive to supporting large bushfires", with a history of "large recurrent fire events" and "a high likelihood of supporting bushfires in the future". The highest-risk section of a 6 GW corridor has been assessed from standard tables and a comparison with lines elsewhere.

TR12 concludes that its Section 8 measures "will serve to maintain bushfire risk to the project" at levels "as low as reasonably practicable". Those measures are largely compliance with existing standards and plans. ALARP is asserted, not demonstrated: there is no estimate of the residual risk to supply, and nothing to show what further measures were considered and rejected.

A proper assessment of this section would include, at a minimum:

- field sampling of fuel loads and structure in the native forest and pine plantation the corridor crosses
- vegetation height and canopy surveys (for example LiDAR) under the proposed spans, with conductor clearance profiles
- verification of slope and aspect along the alignment against TR12's own damage criterion
- a reconstruction of how the 2019-20 Pearson Trail Complex and Pages Creek Road fires actually progressed, from RFS, NPWS and Forestry Corporation records, severity mapping and landholder accounts
- direct input from the local brigades and Forestry Corporation crews who fought those fires

3 | The fire history in the EIS is incomplete

TR12 does not present a full fire history of the corridor, and it should be required to. Its history is drawn from mapped fire extents and focuses on area burnt. It acknowledges that the Pearson Trail Complex burnt for about six weeks, but it does not reconstruct how that fire, or any other, progressed along the proposed alignment, which is what matters for a transmission line. It also gives little regional context: the 2019-20

season brought major fires around the Walcha district, including the Stockyard Flat fire that destroyed homes at Yarrowitch, after record drought and fire weather.

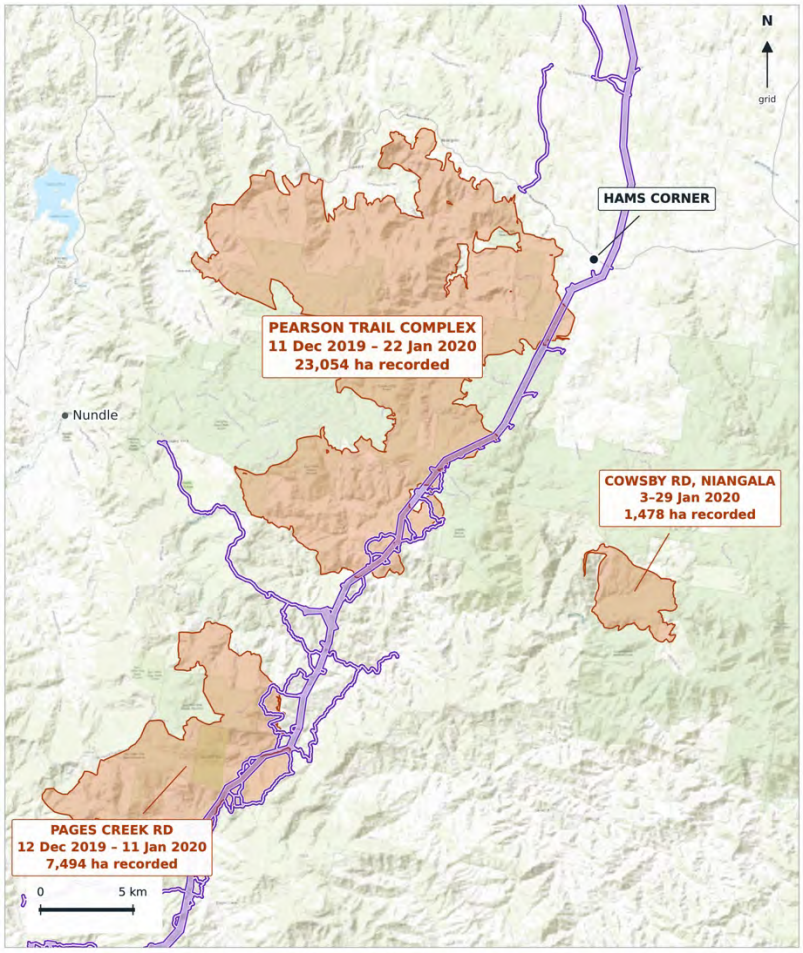
Even so, TR12 concedes the key facts. The Pages Creek Road fire (2019/20) and the Gulf Gogs complex (2002/03) both directly impacted the proposed easement. The Pearsons Trail complex (2019/20) burnt for about six weeks across the steep forest and pine country between Nundle and the Barnard River. TR12 also accepts that large fires in this corridor overwhelmingly occur in drought years, which the Tablelands will see several of over the life of a transmission line.

NPWS fire history records, overlaid on the published EIS project area, show how the 2019-20 fires sat against the corridor:

Fire (2019-20)	Recorded dates (NPWS)	Duration	Area	Relation to project area
Pearson Trail Complex	11 Dec 2019 to 22 Jan 2020	about 6 weeks	23,054 ha	Overlaps the project area south-west of Hams Corner, down through Nundle State Forest
Pages Creek Road	12 Dec 2019 to 11 Jan 2020	about 4 weeks	7,494 ha	Overlaps the project area at the southern end of the section
Cowsby Road, Niangala	3 to 29 Jan 2020	about 4 weeks	1,478 ha	East of the project area

2019-20 fires and the proposed transmission route

Hams Corner, Niangala and south to Pages Creek



Recorded 2019–20 wildfire extent (NPWS)

Published EIS project area

The purple outline includes the transmission corridor and ancillary access/work areas.

The EIS places the final operational easement within this area; its final siting is for detailed design.

Route: EnergyCo / GHD, TR12 Bushfire Risk Assessment, rev. 2, 28 September 2026, Figs 4.3-4.4.
Fires: NSW NPWS Fire History, 2019–20 wildfire polygons. Recorded event dates; retrieved 17 November 2026.
Basemap: Esri World Topographic Map, Esri and contributors. Projection: GDA2020 / MGA zone 56.

Hams Corner marker is approximate. Historical extents do not show burn severity or when fire reached a property.

The project area includes access and work areas as well as the corridor, and the final easement is to be sited within it at detailed design. The recorded event windows of the Pearson Trail Complex and Pages Creek Road fires overlapped for about a month, and both final footprints intersect the project area. A reconstruction of fire progression is needed to establish when particular sections of the alignment would have been threatened.

The first-hand account of the Pearsons Trail fire in this submission describes what a six-week fire in the section TR12 itself identifies as highest risk looked like in practice. TR12 should be revised to include a complete fire history for the route, including how fires progressed along the alignment, and that history should be used to test how the line would operate through fires of that kind.

4 | The risk to the lines has been assumed, not measured

TR12's case that the line is safe from bushfire is an argument by analogy. It says 500 kV lines have operated in NSW for more than 43 years, that they suffered negligible damage in 2002/03 and 2019/20, and that serious damage in 2019/20 was confined to 330 kV lines in the Snowy Mountains, where the terrain is worse than here. From that it concludes the risk to this project is "tolerably low". It maps hazards along the route and models indicative fire behaviour, but it never translates that into what fire would mean for the operation of these lines.

The analogy does not hold up, for five reasons.

1. **Ignition history is not exposure.** Much of TR12's reassurance is that 500 kV lines do not start fires. That is a different question from whether fires stop them working.

2. **Existing 500 kV lines did go out.** TR12 records 11 transient outages on three 500 kV lines in 2019-20, and concedes it is "not practically feasible to fully eliminate" such outages and that this line "may experience outage events episodically". It never estimates how often, for how long, or at what cost to supply. Six of those eleven outages were on the Eraring to Kemps Creek line, the same line TR12 holds up as its example of continuous operation through fire weather. NPWS records show that line was crossed by four fires in 2019-20, including Gospers Mountain and Three Mile, and by large fires in 1993-94, 1997-98, 2001-02 and 2002-03. Its record shows that a line in a meshed network close to Sydney can ride through repeated fires with transient outages. It says nothing about a corridor carrying the export of an entire REZ.

3. **TR12 states the damage criterion, then does not apply it.** It says 2019-20 damage occurred where lines crossed forest at or near the top of long, steep slopes facing north-west to south-west, where westerly winds drove crown fires uphill. It says the greatest risk on this project is in line sections matching that description. It maps slope and aspect (Figures 4.13 to 4.18) and vegetation separately, but does not bring them together to show which towers and spans fall in those conditions, or what the modelled fire behaviour and conductor clearance is at each. Its terrain legends also refer to north-to-west aspects, while the text identifies north-west to south-west; EnergyCo should explain whether the mapping captures the exposure it describes. The descent from about 1,300 m in Nundle State Forest to about 600 m at the Barnard River is the obvious place to start.

4. **TR12 has not shown the lines it cites are comparable in role.** The existing lines TR12 cites are part of a meshed network built around the coal stations. The bulk corridor would be the principal export path for an entire REZ. TR12 has not shown that the lines it cites are comparable in network role, alternative export paths or exposure to simultaneous circuit loss. TR12 concludes the project's

bushfire risk is "substantially similar" to that of the Eraring to Kemps Creek and Bannaby to Mount Piper 500 kV lines, but each of those is a single double-circuit tower line. Neither is two parallel double-circuit lines in one shared easement, as proposed here. A fire across the shared easement, affecting circuits on both parallel lines, could take most or all of the REZ's output with it. The EIS identifies a connection from Central Hub B to the existing 330 kV network, but does not show how much generation it could carry if the bulk corridor were constrained or lost.

5. **Outages do not need flame contact.** On 7 January 2020 the Liddell to Muswellbrook and Liddell to Tamworth 330 kV lines tripped on bushfire pollution on their insulators after three dry months, separating NSW from Queensland. That happened on lines out of Liddell, beside Bayswater where this project would terminate. TR12 recognises flame and smoke-plume interruptions, but not bushfire contamination building up on insulators and later flashing over.

TR12's comfort also rests on 500 kV towers rarely being damaged. That has been true of bushfire in NSW so far, but parallel 500 kV lines in one corridor have been lost together in Australia. On 13 February 2024 a storm brought down six towers near Anakie in Victoria and both Moorabool to Sydenham 500 kV lines tripped. Victoria lost about 2,900 MW of generation. Even on accessible farmland, temporary towers did not return the first line to service until 25 February and the second until 6 March. It shows what a common-mode loss of a shared 500 kV corridor looks like, and how long restoration takes.

Fire is not the only event that could take out both lines at once. The corridor climbs to about 1,300 m in Nundle State Forest and crosses the exposed New England Tableland, country subject to very high winds and to snow and ice in winter. Anakie was not a one-off: on 31 January 2020 high winds brought down six towers on a double-circuit 500 kV line near Cressy, also in Victoria. Wind engineers have warned that transmission towers are now failing in ways not seen before, and that the overhead line design standard, AS/NZS 7000, does not yet reflect how a line's length and orientation affect its exposure to convective downbursts.

In NSW, a severe storm on 16 October 2024 brought down seven Transgrid 220 kV towers, cutting supply to Broken Hill. Snow is a real risk on this route too. In the 2 to 3 August 2025 snowstorm, 30 to 60 cm of snow was reported at Guyra, snow and ice closed the New England Highway and the Walcha to Bendemeer road, and the weight of snow brought down trees and power lines across Walcha, Uralla and Armidale. More than 32,000 homes and businesses lost power, crews could not begin some repairs until access improved, and power was not fully restored in New England until 9 August. The event shows the snow loading and access problems the elevated sections of this corridor would face.

The EIS should state what wind, snow and ice loads the towers and conductors are designed for in each section, including downbursts at the most exposed elevations and combined ice and wind loading. It should show the consequences for supply if a single storm failed towers on both parallel lines, how long restoration would take in steep or snow-affected country, and whether the shared easement is appropriate given that one storm cell can reach both lines. If EnergyCo has modelled these events, the results should be published. If it has not, it should be required to.

A measured assessment would identify the exposed sections, model the actual fuels and slopes in each, estimate outage frequency and duration from all causes, and then state what those outages mean for the delivery of REZ generation. TR12 does not do this.

5 | Fire weather: incomplete and unrepresentative data

TR12's fire weather evidence is thin, and it is drawn from the wrong places for the highest-risk section.

Location	Baseline severe fire danger days per year (1990-2009)	Projected additional days by 2090, low / high emissions
Armidale	0.3	0.1 / 0.7
Tamworth	Not given	0.58 / 2
Muswellbrook	Not given	1.49 / 4.41
Walcha, Nundle, Northern Slopes escarpment	Not given	Not given

Only Armidale has a baseline. For Tamworth and Muswellbrook, TR12 gives the increase without the starting figure, so the reader cannot tell how many severe days those places get now or will get. Nothing is given for Walcha, Nundle or the escarpment between the Tableland and the Barnard River, where TR12 itself places the greatest risk. Armidale, on the elevated Tableland, does not represent the escarpment.

From these figures, TR12 concludes that planning values of FFDI 80 (New England and Northern Slopes) and FFDI 100 (Greater Hunter) remain valid because projected changes "will not exceed these levels". A count of severe days does not show that extreme values will stay within those limits. North-east NSW reached catastrophic fire danger on 6 September 2019. EnergyCo should provide baseline and projected severe fire danger days for each section of the route, using data representative of the escarpment, and an exceedance analysis showing how often FFDI 80 and 100 could be exceeded over the life of the asset.

6 | Derating, depowering and damage

There are three separate ways a fire stops this line delivering power. TR12 deals properly with none of them.

6.1 Derating: security constraints from bushfire risk

Under AEMO's Power System Security Guidelines (SO_OP_3715), the loss of both circuits of a double circuit line is normally treated as non-credible. During a bushfire, the network operator scores the threat, and if the total reaches 13 or more, AEMO considers reclassifying the simultaneous loss of both circuits as credible. AEMO then constrains dispatch and flows so the system stays secure if both circuits are lost. In the bulk corridor, two double-circuit lines would share one easement. The guidelines direct the assessment to the double circuit most exposed to the fire front, and allow AEMO to reclassify the loss of multiple circuits on the network operator's advice. A fire front crossing the shared easement puts all four circuits in play, and the transfer limit then depends on how many of them AEMO must assume could be lost together.

As an illustration only, using assumed conditions for a fire in the Nundle to Barnard River section, the scores could add up as follows:

Factor (SO_OP_3715 Appendix A)	Score	Nundle State Forest to Barnard River
Fire danger: Catastrophic	6	North-east NSW hit catastrophic FFDI on 6 Sept 2019
Easement fuel: plantation	4 (highest category)	Pine plantation in Nundle State Forest
Fire expected to reach easement within an hour	5	Steep uphill runs; TR12 models up to 7.6 km/h in forest
Fire service confirms a threat to the easement	3	Standard on an active incident
Double circuit on single towers	2 (highest category)	Both parallel lines are double circuit
Total	20	Threshold is 13 (subtotal before operator-action adjustment of -2 to +3)

Even on an "Extreme" rather than "Catastrophic" day, the same fire scores 17. Even with the most favourable operator adjustment (-2), the totals would be 18 and 15, still above 13. The guidelines also say that confirmed aerial retardant spraying on or over the circuits triggers reclassification.

So on serious fire days in that forest, AEMO could restrict how much of the REZ's output can flow, possibly on many days while a fire like the Pearson Trail Complex burns for six weeks. On 4 January 2020, after the separation, AEMO constrained Wagga area generation to zero for security. If the same were done here, the stranded generation could be measured in gigawatts, on a hot, high-demand day, when NSW is most likely to be short of supply.

TR12 acknowledges that control rooms can re-classify lines to "adjust operating limits or electricity flows". Those restrictions can require generation curtailment. It does not apply AEMO's bushfire criteria to the project, or estimate the resulting transfer limits, how long they would last, or how much generation would be curtailed.

Heat is a separate issue. A line's thermal rating falls as ambient temperature rises, and fire weather often comes with extreme heat. The EIS should state the line's rating at the temperatures expected under fire conditions, and how often its full 6 GW could not be delivered.

6.2 Depowering: de-energisation, smoke and flashover

TR12 calls de-energisation at the request of the Rural Fire Service an "unlikely event". It gives no data. It also concedes that fires can cause power interruptions through flame or ionised smoke columns reaching the conductors, and that it is "not practically feasible to fully eliminate" such outages.

NPWS told EnergyCo that firefighters working under high voltage lines is a real risk and that it needs to be assessed. TR12's answer is largely qualitative: the RFS has doctrine for working near powerlines. The EIS should identify which ground and aerial operations would require de-energisation, which could proceed under other controls, how many circuits would be affected, and the resulting loss of transfer capacity.

TR12 recognises flame and smoke-plume interruptions, but not bushfire contamination building up on insulators and later flashing over, as happened to Lines 83 and 84 out of Liddell in January 2020. A connection terminating at Bayswater faces the same exposure.

6.3 Damage, and how long it takes to fix

TR12 says towers are non-combustible and need no defence. That is not the question. The question is what happens when conductors are annealed, insulators damaged or a tower lost in country where crews cannot get in.

TR12's own modelling gives flame lengths of 40 to 50 m in dry forest and 53 m in wet forest on slopes over 15 degrees, against a 10 m vertical clearance above retained canopy. Flame length is not the same as height above the canopy, but with spans averaging 450 m and longer in places, and conductors sagging mid-span, the EIS should show, span by span through the steep forest, how modelled fire behaviour, retained vegetation, sag and clearances have been assessed together.

7 | A fire that burns on the corridor for weeks

The EIS must be required to test the line against the kind of fire this corridor has already had. In 2019-20 the Pearsons Trail complex burnt for about six weeks (11 December 2019 to 22 January 2020) and the Pages Creek Road fire for about four weeks (12 December 2019 to 11 January 2020), with event windows overlapping for about a month and both final footprints intersecting the published project area. The Pearsons Trail fire burnt in the very section TR12 identifies as most likely to suffer a significant bushfire, through pine plantation for which TR12 discloses no separate fuel scenario, and the first-hand account in this submission describes its course. Fires in this country are not single-day events. They burn in steep, inaccessible terrain, are contained and break out again with each run of bad weather, and are often only put out by rain. Each question below follows from that, and none is answered in the EIS.

7.1 Will the lines be derated for the whole fire?

Under AEMO's guidelines, a bushfire reclassification is cancelled only when the network operator advises that the fire is no longer a threat to the line: the front has passed, winds have eased, or the fire is out. A fire burning beside the easement in inaccessible country for six weeks can become a threat again on each hot, windy day in that period. The EIS should state how many days the line would be expected to run under reclassification constraints during such a fire, at what transfer limit, and how much REZ generation would be curtailed.

7.2 Will they be de-energised for aerial attack and ground crews?

In steep forest, aerial attack is often the only practical attack. AEMO's guidelines treat confirmed retardant spraying on or over the circuits as grounds for reclassification. TR12 says retardant drops are kept at least 25 m from lines and towers. NPWS told EnergyCo that low-level aerial work is often under 300 feet, and that the risk to firefighters under high voltage lines needs to be assessed. If aircraft or crews need to work the easement itself, or use it as a containment line or backburning edge, some or all circuits may have to be switched off. The EIS does not say which operations would require that, how often, how many circuits, or for how long.

TR12 identifies both involuntary outages caused by bushfire and deliberate de-energisation to permit firefighting, but does not quantify either for this route. Describing firefighting shutdowns as unlikely does not establish how often they may be required, which circuits would be affected or how long restrictions would last. The EIS must also explain which aerial operations remain practicable with the lines energised, what restrictions apply to water and retardant drops, and when de-energisation or network reclassification would

be required. TR12 also credits a "highly successful firefighting campaign" with minimising pine plantation losses around Nundle in the 2019-20 Pearson Trail Complex fire, but does not consider whether that campaign could be fought the same way with two 500 kV lines through the plantation.

7.3 Which comes first: firefighting or energy security?

TR12 sets out a process: the RFS, as lead agency, directs the network operator and AEMO, the outage is verified and confirmed back to the RFS, and the Incident Controller then decides on firefighting activity. It describes de-energisation as an "unlikely event". It does not address what happens when the two priorities conflict, which is precisely when it matters: a hot, high-demand day, with NSW short of reserves and the fire running.

The 4 January 2020 event shows how hard those decisions are. AEMO's final report records that AEMO judged it not reasonable to constrain Victoria to NSW transfers that day because NSW reserves were already low, and that the system was then not secure for about 13 minutes between line trips. If the RFS asks for this line to be switched off on such a day, will the request be met immediately, or weighed against the loss of up to 6 GW? It may be possible to maintain supply through other generation, other network paths or partial shutdowns, but the EIS has not shown how. It should show how an urgent firefighting shutdown in Nundle State Forest or below Ben Halls Gap would be carried out promptly, who decides, and what the supply consequences would be under high-demand, low-reserve conditions.

7.4 Can they be derated or switched off without affecting energy security?

Only if something else can supply what the REZ is meant to supply. The EIS does not identify what generation or network capacity would replace up to 6 GW during a weeks-long fire, or whether it would exist by the 2030s when the line is due to be energised. AEMO's 4 January 2020 report records about 2,267 MW of generation availability lost that day, a Lack of Reserve 2 declared in NSW, and emergency reserves activated. The bulk corridor alone could carry more than twice that. AEMO should be asked to assess the effect of losing or constraining one or both lines for an extended period, and the EIS should publish that assessment.

7.5 Can damage be repaired while the fire is still burning?

TR12 says construction crews in this country may need more than 30 minutes to evacuate, some on unsealed roads. Repair crews will face the same terrain, plus fallen and burning trees. In northern NSW in November 2019, Transgrid could not reach structures on its 132 kV Armidale to Koolkhan line because of active fires, and took about nine days to return it to service. Damage to one or both of the 500 kV lines in Nundle State Forest early in a six-week fire may not be reachable for some time. After the 2024 Anakie collapse, on accessible farmland with no fire, restoring the two parallel 500 kV lines on temporary towers took 12 and 22 days. The EIS should set out restoration scenarios for each circuit that allow for periods when active fire prevents safe access, followed by inspection and repair.

8 | Specific deficiencies in Technical Report 12

1. **No supply security assessment.** TR12 maps hazards and models indicative fire behaviour, but does not quantify how often or how long circuits would be lost or constrained, how much transfer capacity would remain, how much generation would be curtailed, or whether supply would stay secure. Section 6.2.6 on outage potential is about a page.
2. **Risk assumed from other lines.** The conclusion that risk to the lines is "tolerably low" rests on the record of other 500 kV lines, not a quantified assessment of this route. Fuel loads are RFS standard values, no field sampling was done, and no bushfire-specific field sampling of fuel loads is disclosed in the highest-risk section. TR12 states the conditions that caused transmission damage in 2019-20 but does not identify which towers and spans meet them.
3. **No prolonged fire scenario.** TR12 acknowledges the six-week Pearson Trail Complex but does not reconstruct its progression against the alignment, or assess how an equivalent fire would affect circuit availability, operating restrictions and restoration.
4. **Reclassification not applied; insulator contamination not assessed.** TR12 acknowledges reclassification but does not apply AEMO's bushfire criteria to defined scenarios or quantify the resulting restrictions. It does not assess contamination building up on insulators and flashing over.
5. **No plantation fuel scenario.** Section 4.1 says pine plantation fuels would drive fire behaviour where plantations are established, but no separate plantation scenario is disclosed in the modelling tables. EnergyCo should explain how plantation age, structure, fuel loads and management were represented.
6. **Fire weather.** TR12 asserts that climate change will not exceed FFDI 80 and 100, relying on projected numbers of severe fire weather days. That does not show those values represent future extremes. Exceedance analysis and sensitivity testing are needed.
7. **Modelling inputs to be checked.** Page 39 pairs FFDI 80 with GFDI 110, but the grassland note in Table 4.4 refers to GFDI 130. The shrubland and grassland results in Table 4.4 are identical to those in the FFDI 100 table. EnergyCo should explain the inputs and confirm the calculations.
8. **Overstated certainty.** The conclusion says diligent construction controls "can entirely prevent bushfire ignition". EnergyCo should explain how implementation failures and residual risk are treated. ALARP is asserted for the Section 8 measures with no estimate of residual risk to supply.
9. **Consultation detail.** TR12 records consultation with only "some local representatives" of volunteer brigades. It should list the brigades consulted, their advice, unresolved concerns, and how Nundle and Barnard River scenarios address them.
10. **Firefighting shutdowns not quantified.** NPWS raised the risk to firefighters under high voltage lines. TR12's treatment is qualitative, with no shutdown times or circuit availability consequences.

9 | Requests to the Department

1. Find that TR12 does not adequately assess bushfire risk to the project, and that the EIS has not assessed the consequences of bushfire for electricity supply security.
2. Require a route-specific risk assessment that identifies every line section matching TR12's own damage criterion (forest at or near the top of long, steep slopes facing north-west to south-west), with fire behaviour modelled for the actual fuels in each, including pine plantation, and span-by-span conductor clearance checks, supported by field sampling of fuels and vegetation surveys in the Nundle to Barnard River and Pages Creek sections, and fire weather data representative of the escarpment with an exceedance analysis for FFDI 80 and 100.
3. Require a prolonged fire scenario for the Nundle to Barnard River and Pages Creek sections, based on the 2019/20 Pearsons Trail and Pages Creek Road fires, setting out expected days under reclassification constraints, de-energisation for firefighting, repair access and restoration times, and the volume of REZ generation curtailed.
4. Require EnergyCo to obtain and publish written advice from AEMO and the network operator on how the line would be operated during such a fire, and from the NSW RFS on when it would request de-energisation and how conflicts between firefighting and supply would be resolved.
5. Require AEMO's assessment, for each credible bushfire scenario, of the transfer capacity remaining through unaffected circuits and other connections, including the Central Hub B connection to the 330 kV network, the generation curtailed, and whether supply would remain secure, including a stress test with transfers approaching 6 GW.
6. Require a complete fire history of the corridor, including how fires progressed along the alignment, informed by local brigades and landholders.
7. Require EnergyCo to justify concentrating up to 6 GW in one shared corridor through this country, to demonstrate the consequences of a bushfire affecting one circuit, both circuits on one tower line, or circuits on both parallel lines, and to assess route or circuit alternatives that avoid the Nundle State Forest and Barnard River escarpment. The same assessment should cover severe wind, including convective downbursts, and snow and ice loading on the elevated sections.
8. Require an assessment of the risk to firefighters working under or near the line, as NPWS requested.
9. Not determine the project until these matters have been assessed and exhibited for comment.

Sources

GHD for EnergyCo, *New England REZ Network Infrastructure Project, Technical Report 12: Bushfire Risk Assessment*, Rev 2, 28 September 2026 (EIS, SSI-74175972). Sections 1.2, 3.4, 4.1 to 4.8, 5.2, 6.2, 6.3, 9.

AEMO, Power System Security Guidelines SO_OP_3715, Appendix A bushfire reclassification criteria

AEMO, Final Report: NSW and Victoria Separation Event on 4 January 2020, September 2020

Transgrid, Overview of 2019-20 Bushfire Damage to TransGrid's Network, AER cost pass through application, November 2020

NSW Government, Annual Air Quality Statement 2019: Bushfires

NBN News, North West fire update: Stockyard Flat fire, Yarrowitch

Energy Networks Australia, Towers down but the transmission grid powers on (Anakie, 13 February 2024)

WattClarity, How severe thunderstorms impact energy infrastructure (Moorabool to Sydenham return to service dates)

Energy Safe Victoria, Cressy 500 kV Tower Incident, 31 January 2020: incident report

create digital (Engineers Australia), Transmission tower failures on the increase

IPART, Investigation Terms of Reference: Broken Hill tower failures and power outages, October 2024

Essential Energy, Staying prepared and strengthening the network for storms ahead, 11 August 2025

New England Times, Evacuations in Gunnedah as flooding worsens, others plan to be without power for days, 3 August 2025

New England Times, Communities recover from the Winter Wonderland that became a Winter Nightmare, 12 August 2025

Maps: NSW NPWS Fire History, 2019-20 and earlier wildfire polygons (retrieved 17 November 2026), overlaid on the EIS project area from TR12 Figures 4.3 to 4.5. Fire overlap shows where recorded fires burnt; it does not establish damage, fault locations or burn severity.

Appendices

Appendix A
Submission from Harley McKillop - Pilot

My name is Harley Mckillop. I hold the following expert qualifications that enable me to

provide feedback, from an Aerial firefighting and safety perspective, to the New Study Corridor released by EnergyCo on 2 October 2025:

- I have been a pilot for 45 years and for the past 35 years I have been flying extensively in the low level environment.
- I have flown aircraft on firefighting deployments across most states in Australia and Europe.
- I was the chief pilot of Pays Air Service, a global aerial firefighting company, for 18 years, mainly based out of Scone NSW.
- I am one of 6 independent Civil Aviation Safety Authority (CASA) approved aerial
- firefighting instructors in Australia and I hold an Examiner of airmen rating for CASA.
- I now own and operate a Low Level flying school which in based out of Scone NSW, where I train and examine pilots for the issue of Aerial application ratings, Low Level ratings, firefighting ratings, as well as design feature endorsements.

Part of what I also do is contract my services to various operators to fly the FireBoss amphibious scooping aircraft for firefighting. This aircraft requires a great deal of concentration to operate. In some cases, we are picking up a load from a waterway every 5 minutes, and we will do this for 3 hours before requiring fuel. The work is nearly always carried out in extreme temperatures and strong winds, the concentration required to scoop and drop on the fire for a 3 hour stretch is immense. The day is very fatiguing with no room for error.

I refer to the written feedback submissions from Nat Nagy, Chief Operating Officer at Pay's Air Service, in respect of EnergyCo's New Study Corridor. I fully concur and agree with Mr Nagy's feedback submissions. I refer to the Attachments to Mr Nagy's feedback submission (which are attached again below to this feedback). I note that I was the pilot flying the FireBoss amphibious scooping aircraft VH-AP8 for the period 1st to 9th December 2025, and this is in fact my flight data for flight tracks and scooping zones in and around Lake Glenbawn whilst I have been fighting fires these past 10 days. I note that this data only represents my flight data for the aircraft I was flying during this period, and that there were 5 other firefighting aircraft flying with me as a team during this period.

As the maps show, I have been working extensively out of Lake Glenbawn over the last 10 days to fight numerous different bushfires in the region, using every stretch of the Lake and its surrounds to approach, scoop, and depart. In particular, I, together with a team of 6 other Fireboss aircraft, have been fighting the bushfire known as the 'Hunter Road Bushfire', located at Glenrock, to the north-east of Lake Glenbawn. The flight data maps clearly show that we were required to extensively utilise the far eastern end of Lake Glenbawn for approaches, scooping and departures, to fight this fire, and that the New Study Corridor would have completely prevented our firefighting operations.

Lake Glenbawn is unique in its shape and size, making it one of the few water bodies in the Upper Hunter Region that aerial firefighters can use to scoop water in any wind direction, as most of our scooping requires a headwind. The size and scale of the Lake also means that, unlike other smaller water bodies in the regions, we are able to have multiple aircraft operating and scooping out of the Lake at once – which obviously increases significantly our firefighting capabilities.

In fact, the Chaffey Dam water source was slightly closer to the Hunter Road Bushfire, so geographically it would have made sense to scoop from Chaffey Dam to fight this fire.

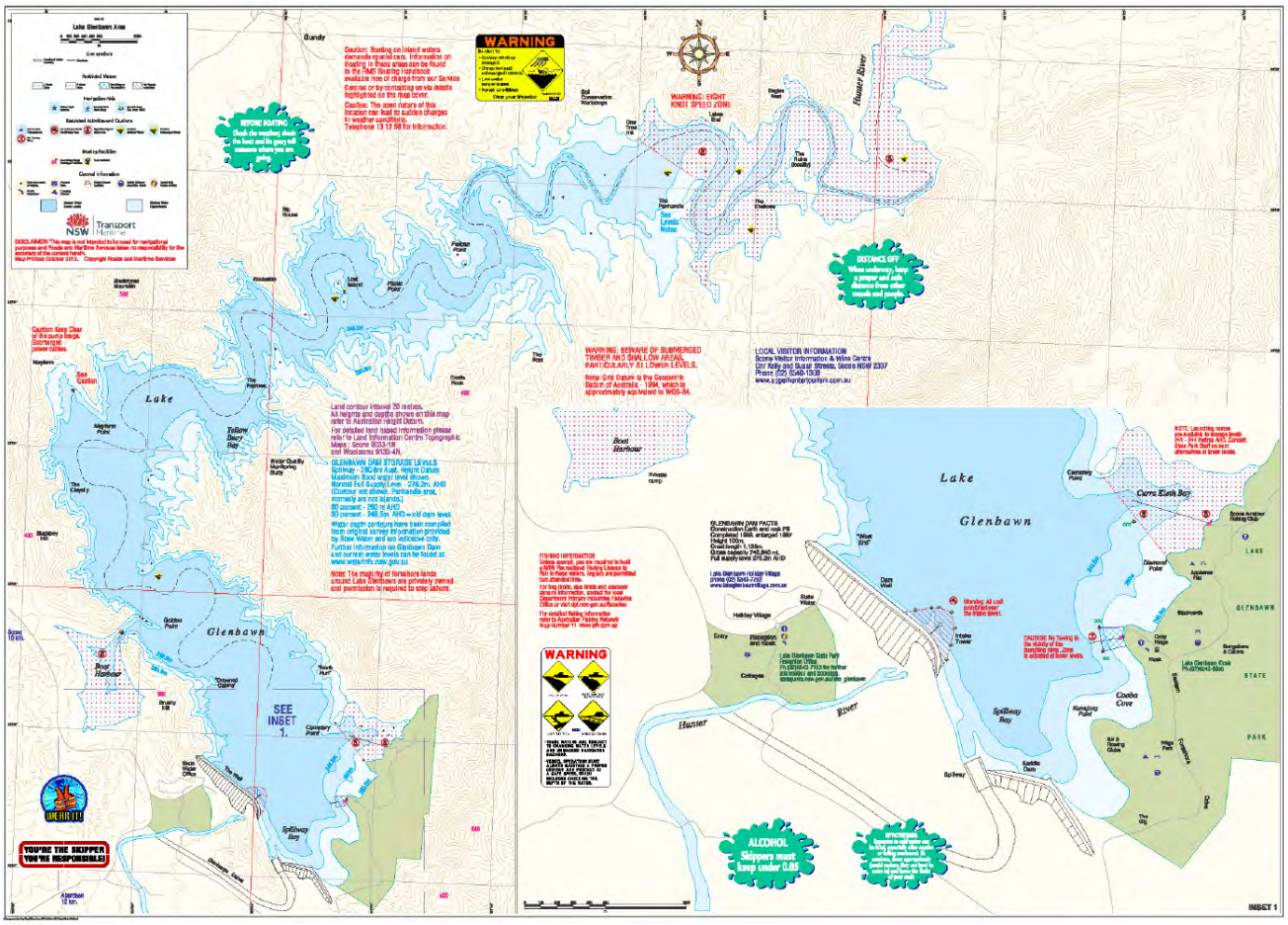
However, we were unable to scoop from the Chaffey Dam as it is a smaller water source than Lake Glenbawn, which requires the wind to be in a specific direction to scoop, which severely limits the Dam's useability. Also, the smaller size of Chaffey Dam meant that we could not operate in a team of 5 aircraft. These factors combined, meant that the only water source option available to us to scoop to aerially fight this fire was Lake Glenbawn. This scenario is consistent with many other bushfire campaigns in the Upper Hunter region. This highlights the critical import of Lake Glenbawn as a water source for aerial firefighting operations throughout the Upper Hunter.

In the circumstances, we as the pilots, and the broader public community, cannot afford to have any kind of transmission lines and structures added to the landscape in and around Lake Glenbawn that will detriment our aerial firefighting ability to save lives and assets. The nature of our work requires us to work in already very dangerous and smoky conditions, and to have EnergyCo propose dual transmission lines anywhere near Lake Glenbawn, the place of our highest workload, is not acceptable.

In my expert opinion, I believe that if EnergyCo builds the proposed transmission lines which traverses over any part of Lake Glenbawn, or within 4 nautical miles of any approach zone to Lake Glenbawn to scoop, it will only be a matter of time before a firefighting aircraft is involved in a serious incident. We require a safe workplace, and it is the duty of the NSW Government to do everything in its power to ensure a safe workplace is maintained, so that the invaluable work of the aerial firefighting for the Rural Fire Service can continue.

Appendix B

Glenbawn Dam map, showing water levels and shoreline for different capacities



> Appendix B: Map of Glenbawn Dam showing RL water heights at different Dam percentage fill levels.

Appendix C

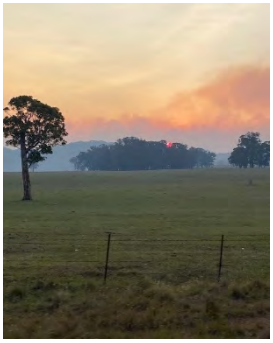
Landholder diary account of the 2019 - 20 bushfires, along Forest Way

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Located in close proximity to the proposed 2 x 500 New England REZ transmission line.

Diary of Christmas 2019 Fires

I note that I am a member of the Niangala Branch of the Rural Fire Service of New South Wales. The proposed power lines run along the top of the Great Dividing Range, along Forest Way, before turning south towards Barry. I have marked on the maps in yellow where the power lines are going to be.

Below is a short account of my experience in fighting the Christmas 2019 bushfires.



Thursday 19 December 2019

I worked at Tamworth during the day and travelled to our property at Forest Way to keep an eye on the fires were and the stock. The fires were getting closer and I was beginning to get worried as to what I would do with the stock and how I could best protect them. I spoke to my neighbour Aaron Ham and arranged that I would take the horses to his place if the fires got too much closer. I also got the cattle out into the open so they would stand some chance if the fire came through the property.



As I drove home, there was a smoky pall over the whole area. Below is a photograph of the landscape with the smoke on 19 December 2019, together with a map on 19 December 2019. On the map, you can see darker shaded areas where the fire was at that stage. My property is marked with an X and Y is where the Moore's property is. The proposed power lines are marked with the black line.



Friday 20 December 2019

I went to work as per normal in Tamworth that day and at the end of the day I travelled back to the farm. I rang Bruce Moore to see if he needed assistance. My two sons and I then went down to the Moore's place and assisted in backburning with property. I attach a photograph that showed where bulldozers had gone along next to the forest and cleared the land within approximately 50 metres of the road.





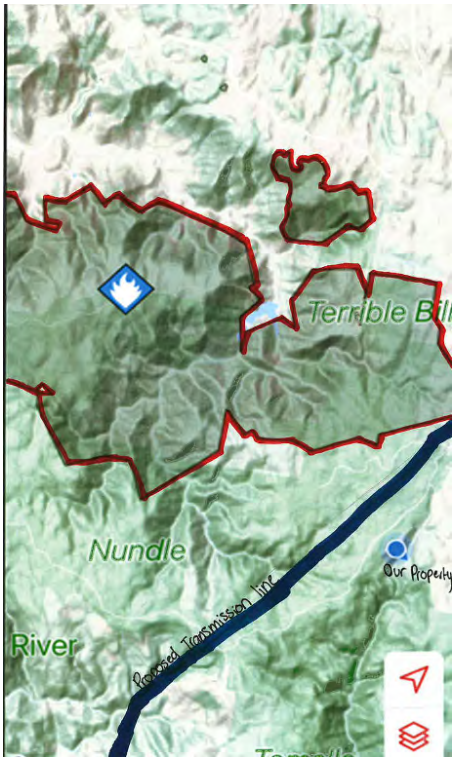


Our job was to go to the where the trees started and backburn. It would then gently burn down into the forest overnight. I note that all the work that we did was at night. We would gather at about 7:00 pm and work through the night. The following photos were all taken on Friday 20 December 2019. We were encircling the pine forest to ensure that no fire breached the road and jumped over into the pine forest. There were a couple of instances where a spark would go over the top and go into the pine forest, and our job was to quickly encircle it with bulldozer and use water, and our boots, to stamp the fire out. We backburned throughout the night and went home at about 3:00 am.



Saturday 21 December 2019

I attach herewith a map showing the spread of the fire. The blue dot is our house and to the north the fire had spread around to the east. The Niangala Brigade were looking after the fire near Ham's Corner, whereas we were looking after the area down closer to Nundle. This photograph was taken on 21 December 2019 and shows where the fires were. They were obviously burning to the east towards the top of the range and so we went back to where we were the previous day and backburned down into the forest, away from the pine forest.





A lot of heavy machinery was starting to arrive, and the weather conditions were quite good in that it was dry and not overly windy. The risk was that a spark would jump over the road and breach the firebreak and start on the other side of the line. I attach three photos that shows the area that we were trying to fight.







Sunday 22 December 2019 to Thursday 26 December 2019

During this period, the fire was under some control. There were no breakouts and where it was, was largely inaccessible. We were required to be on standby, however, at this stage, the fires were not causing an immediate risk to any property.





Friday 27 December 2019

We were called up by Bruce Moore. The fire had gone around the pine forest, but had shifted to move through the hardwood forest and up towards Forest Way, climbing towards the top of the range. These two photos on the 27 December 2019 were probably the toughest day. The fire came right up to Forest Way, and we were busy backburning and trying to control the fires and stopping them climbing the bigger trees.



We worked right through the night and there were photos on the 28 of December 2019 that show us on the back of the truck with goggles and masks on for protection. We lit fires and stamped around the bottom of the trees to try and stop them climbing the top of the tree. We worked all night and finished about 8:00 am the next morning. By this stage, the fire had come right up to Forest Way but had not crossed. There were burning trees that were at risk at falling over the road and it wasn't an easy drive home. What would normally take fifteen minutes took much longer. In any event, we arrived home safely mid-morning.

Saturday 28 December 2019

We were called at about 3:00 pm in the afternoon by Captain Bruce Moore who told us that the fire had jumped Forest Way that morning and was now travelling to the east.



This was of great concern. There were a number of houses now at risk, but very few areas to encircle the fire and get around it. We went to go to Moore's property to try to contain the fire. As the landscape was rough and largely inaccessible it was difficult work.



Sunday 29 December 2019

The fire was well and truly alight on the Moore's place. It had jumped the road in most places and there was a real scramble. Up until this day, there was only about 4 or 5 of us fighting the fires but by Sunday 29 December 2019 there were number of different brigades.

The Moore's place was crawling with people and there were a number of fire trucks and a great sense of urgency. By this stage, the entire path of the proposed powerlines was engulfed by fire and out of control.





Monday 30 December 2019

The fire was still out of control and there were at least 4 or 5 fire trucks on the Moore's place, as well as helicopters coming and going and picking up water out of dams. There were two dozers that were punching a line, one coming up from the Moore's and the other coming down from the back of Hanging Rock. They needed to travel about 15 kilometres – a long way on a bulldozer through rugged dense bushland. They both started with a full tank of fuel and were going to meet in the middle before coming out. They were told by the RFS that they had plenty of time and all day to finish the job and they were able to communicate with the whole team on the two-way radio. In some areas they were making fairly slow progress. At one stage somebody asked how long they had to go before they could get out and they reported back they had some hours to go. There was not a sense of urgency, and they continued to punch through the forest. Approximately an hour later there was another call on the two way, and again they were asked how long it would take for them to get out if they turned around now. The driver said it would again be some hours, and the radio operator said that the fire was moving faster than anticipated and to stand by.

Shortly after there was a request on the two way asking everyone to keep the channel clear. The dozer operators were instructed to clear the immediate area as quickly as possible as the fire would be going over the top of them in 10 or 20 minutes. There were a lot of expletives on the radio from the dozer driver and then they got on





with the task at hand. I learned later that when the dozer drivers were told to dig in, they were 20 kilometres away from any clearing. They pushed down as many trees as time would permit take the topsoil off, then put the dozer in the middle of the clearing and buried it under a layer of topsoil. The driver then got under the dozer with a fire blanket.

While this was happening there was radio silence. Finally, after thirty minutes one of the dozer operators came in there and reported, 'Operator X all good'.

There was a huge sense of relief. The fire had gone over the top of them and they were safe.

Later that night we again assisted the dozer gang, pushing a road track through the forest. Again, it was probably three or four kilometre's back to again try and get around the fire.

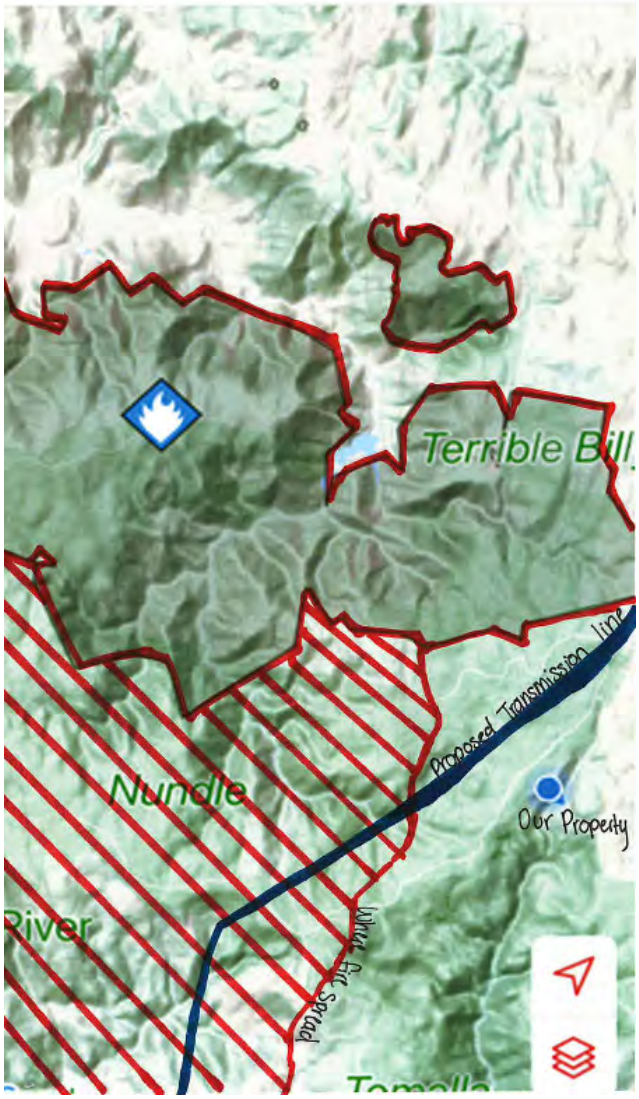


Tuesday 31 December 2019

We continued the backburning, but the sense of urgency had abated, and we got around the fire.

If the powerlines had been there, they would have been destroyed in the fire. I attach herewith a map that outlines where the proposed powerlines will be and where the fire spread.

Mark Grady.





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