

Wolgan Road Reconstruction Project

Community Briefing

11 September 2025, 4-5.30pm

In-person and online



Agenda

Item	Presenter
Funding approval	Christopher Wassef
Slope Risk Assessment update	Christopher Wassef
Restoration case overview and update	Christopher Wassef
Donkey Steps Design	Daniel Park
EIS update	Christopher Wassef
Council Community Update	Lithgow City Council
Meeting close	

Funding approval and conditions



Funding approval – 25 July 2025

- Funding has been approved for an **alternative access road** into Wolgan Valley.
- Final route and design still under investigation – considering cost, risk, construction challenges, and timelines.
- Approval also covers:
 - New independent **Slope Risk Assessment** of Wolgan Road to confirm **safety risks and future options**.
 - Establishment of **Donkey Steps track** as a temporary access road.
 - Operating and maintenance costs for **Donkey Steps during construction**.

Upon review, Transport is pleased to confirm that Council's submission meets guideline requirements, therefore formally providing approval for funding.

Funding Letter, 25th July 2025

Transport for NSW



Funding Letter

25th July 2025

Mr Ross Gurney
General Manager
Lithgow City Council
PO BOX 19
LITHGOW NSW 2790

NSW DISASTER RECOVERY FUNDING ARRANGEMENTS

Lithgow City Council
Essential Public Asset Restoration Works
AGRN 1034 NSW Flooding from 14 September 2022 onwards
Transport Project Number: P.0091407 (P.0091407.01.001.001.003)
Transport Project Name: Lithgow AGRN1034 Wolgan Rd EPAR Storm/Flood FY22
Council Reference (if supplied): AGRN1034- Wolgan Gap
Road Type: Local

Satisfying funding requirements



About DRFA

- Joint Commonwealth–State program supporting disaster recovery
- Funds provided by:
 - NEMA (Australian Government)
 - NSW Reconstruction Authority (RA) (NSW Government)
- Supports rebuilding of essential assets (e.g., roads)



Funding conditions

- Council must:
 - Justify plans
 - Stay under approved budget
 - Follow strict program requirements (time and cost-effectiveness)
 - Keep partners up to date (this takes time)
- Failure to comply = loss of funding

“must meet stringent program requirements regarding time and cost-effectiveness... to remain eligible for the funding.”

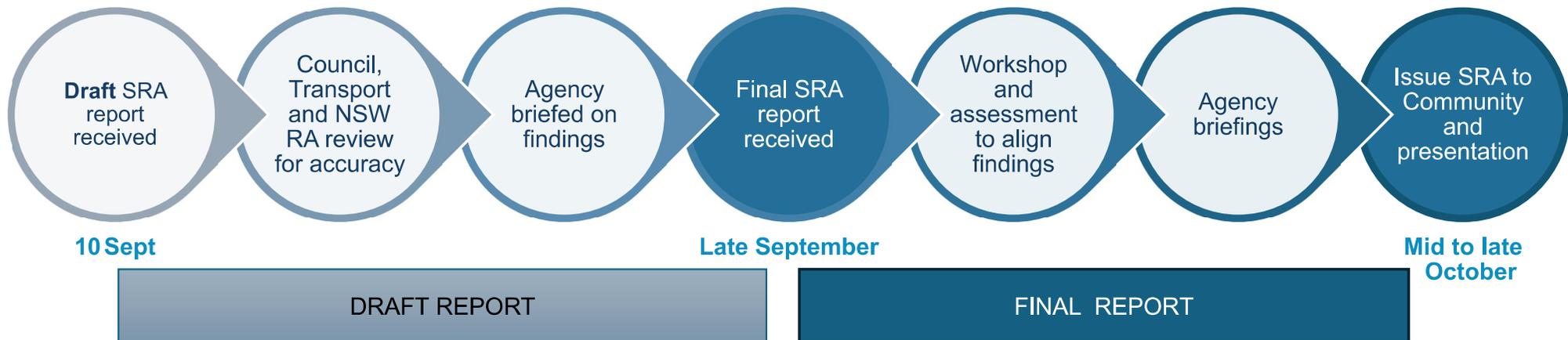
Extract from funding approval

Slope Risk Assessment



SRA timeline

- GHD's Slope Risk Assessment **DRAFT** report was received by Council on Wednesday 10 September.
- Council needs to take several steps to ensure the report is clear, consistent and reliable before being released. This will comprise:
 - Reviewing the report for accuracy and scope compliance
 - Securing partner guidance on the findings (ie Council, TfNSW and NSW RA)
 - Aligning findings with agency experts
 - Securing agency approvals



Application Restoration Case – June 2024



Restoration challenge

Why fixing Wolgan Road is difficult

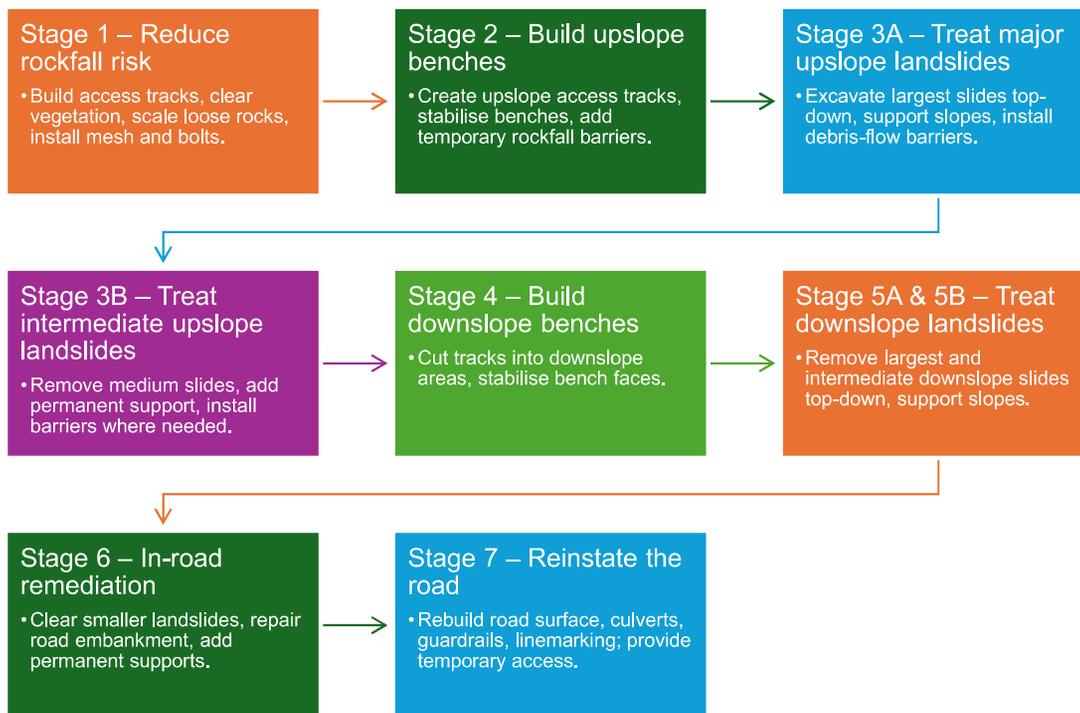
- The road runs beneath 60 metre high cliffs and across very steep hillsides.
- Some of these slopes are still moving today.
- Even after repairs, the risk of future landslides would remain.

How do we know this?

- Satellite radar (InSAR) was used to track ground movements.
- The InSAR covered ~2 km² around Wolgan Road using more than 100 satellite images taken between 2021 and 2022.
- **Results showed active landslides still moving downhill, especially in 2022.**
- The data confirmed that **landslides were still active and worsening during the heavy rainfall period.**

Application Restoration approach

The original EPAR submission (June 2024) assessed the approach, impacts and estimated costs of restoring Wolgan Road based on the 2023 SRA data. It recommended a seven-stage approach to treat upslope and downslope landslides before the road itself could be reinstated.



Crews would need to cut access tracks into the hills.

Cliffs and slopes above and below the road would need stabilising.

Huge volumes of unstable material would need to be removed:

- Hazard 1i: ~350,000 m³ (~17,500 truck & dog loads)
- Hazard 2i: ~175,000 m³ (~8,750 loads)
- Hazard 3c: ~150,000 m³ (~7,500 loads)
- Total: over 2 million m³ (~100,000 loads)

Finally, the road, drainage and safety barriers would be rebuilt.

Visual impact – Application Restoration Case (June 2024)

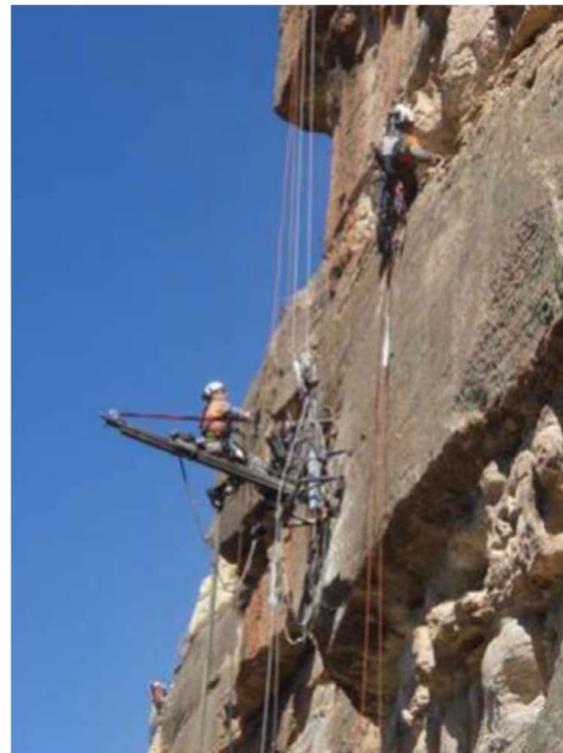


Aerial view of the landslip from above Bogong Village taken by Big Build Victoria

- Restoring Wolgan Road would mean cutting large access tracks both above and below the road.
- Extra work would be needed to protect workers from falling rocks off the cliffs above.
- Example: Bogong High Plains Road (Victoria, 2022):
 - Initial landslide: $\sim 35,000 \text{ m}^3$
 - Wolgan smallest repair volume (Hazard 1i): over $350,000 \text{ m}^3$ ($\sim 600,000$ tonnes) - 10 times bigger
 - Wolgan Road's landslides are larger and harder to reach than Bogong.
- Restoration would leave a significant visual impact - as big or bigger than that seen at Bogong.

Application Restoration Case – summary

- Restoring Wolgan Road would likely take more than **10 years to complete**.
- It would **cost significantly more** than a new alignment
- The work would **leave a visual impact** as whole hillsides are reshaped.
- **Not a resilient solution** - Ongoing inspections, clean-ups, and repairs would always be required.
- Significant **maintenance costs are not funded by DRFA**
- Significant unknowns and **high risk of cost and time blowout**



Rope access targeted rock bolting from crest of RHZ2 undertaken during 2009 remediation works

Updating the restoration case

Restoration case updates

- The new SRA triggers an update of Restoration Case within funding application
- Depending on the SRA outcomes, the updates could cover:
 - Scope of work eg slope stabilisation, construction stages, cut volumes and impacts.
 - Options for temporary reopening or permanent restoration
 - Revised costs, and timeframes



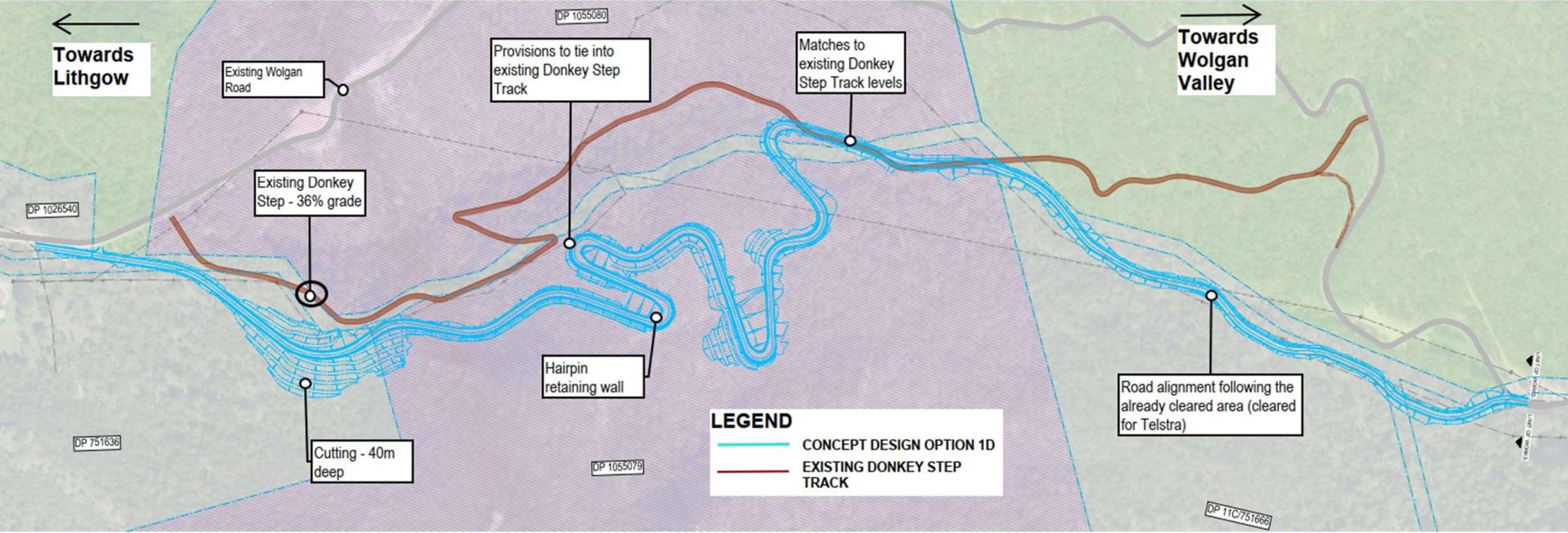
Agency approvals

- Updated case must be accepted by:
 - TfNSW
 - NSW RA
 - NEMA
- Endorsement expected late Nov / early Dec 2025
- Community will be consulted through the process.

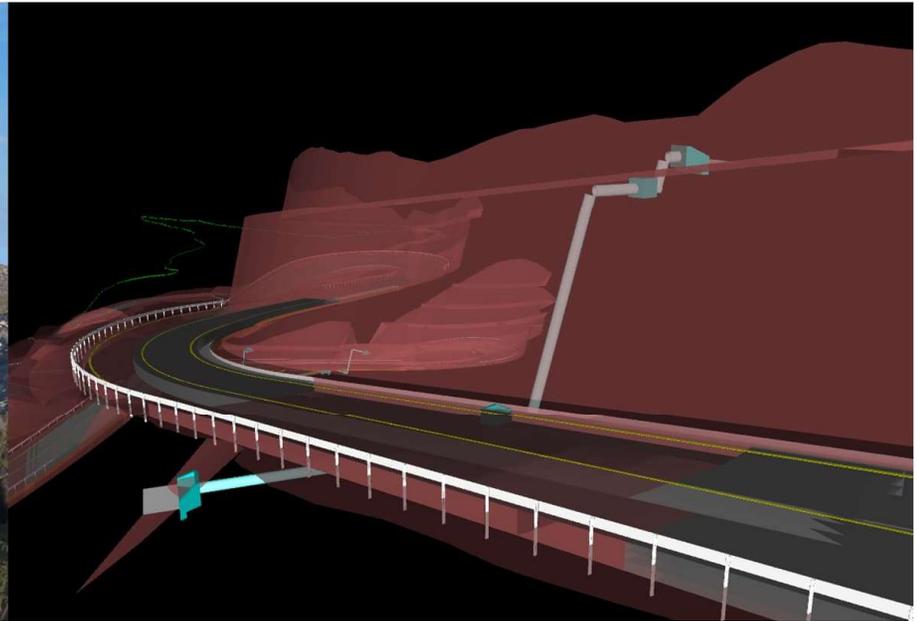
Donkey Steps Design



Donkey Steps Option 1D



Option 1D – 80% Concept Design



Donkey Steps options recap and update

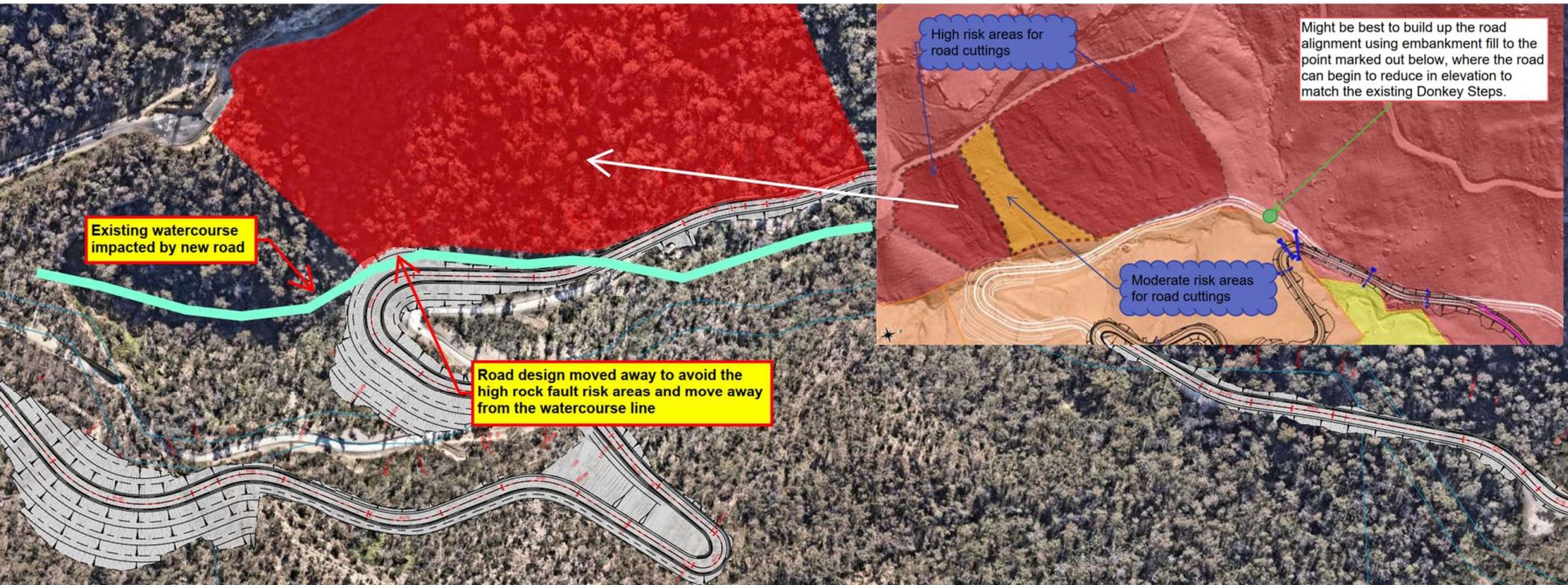
- Project team explored three Donkey Steps Alignment options and the most viable option was chosen to be further development.
- More comprehensive geotechnical and topography survey data became available.
- Design was refined with the new data and adjustments made to overcome some of the key constraints related to geotechnical risks and flooding issues.
- Multi criteria analysis was undertaken comparing Option 1D (current concept design) and Donkey Steps Alignment.

Design criteria – Donkey Steps Alignment (unchanged)

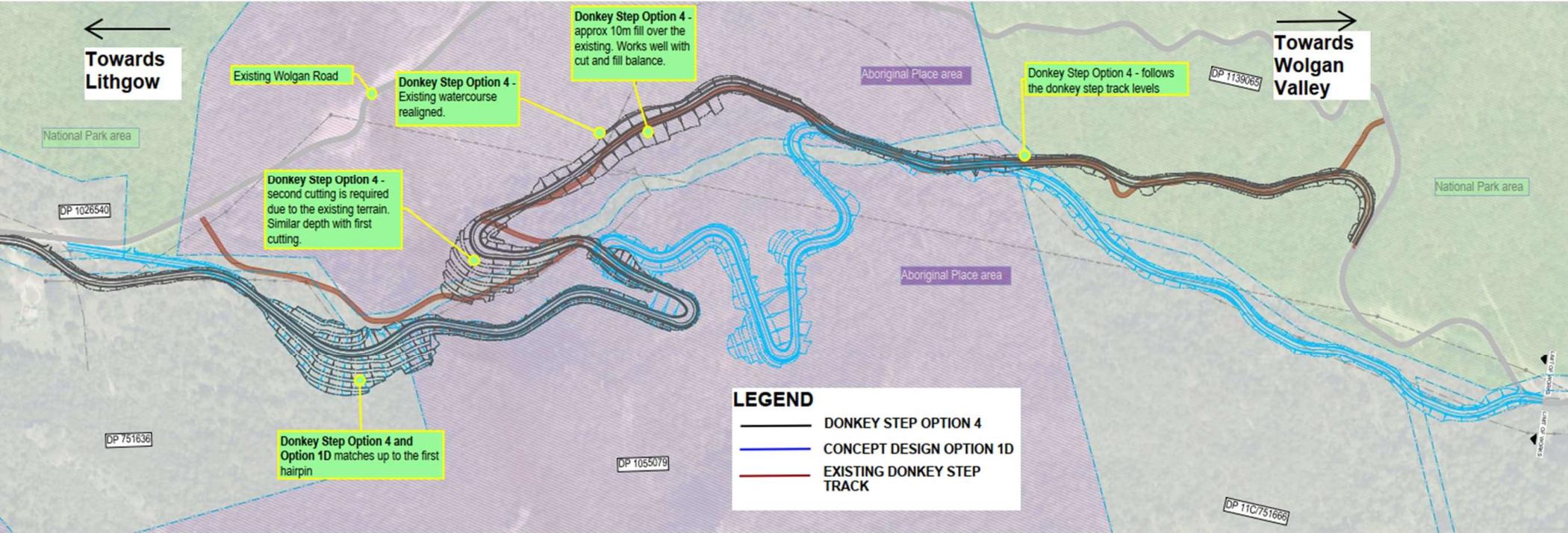
The key design criteria for the Donkey Steps Alignment:

- Design Vehicle – 12.5m Single Unit Truck
- Check Vehicle – 19.0m Prime Mover and Semi Trailer
- Lane Width – 3m
- Shoulder Width - 0.5m
- Verge Width – 1.5m
- Maximum Grade – 15%

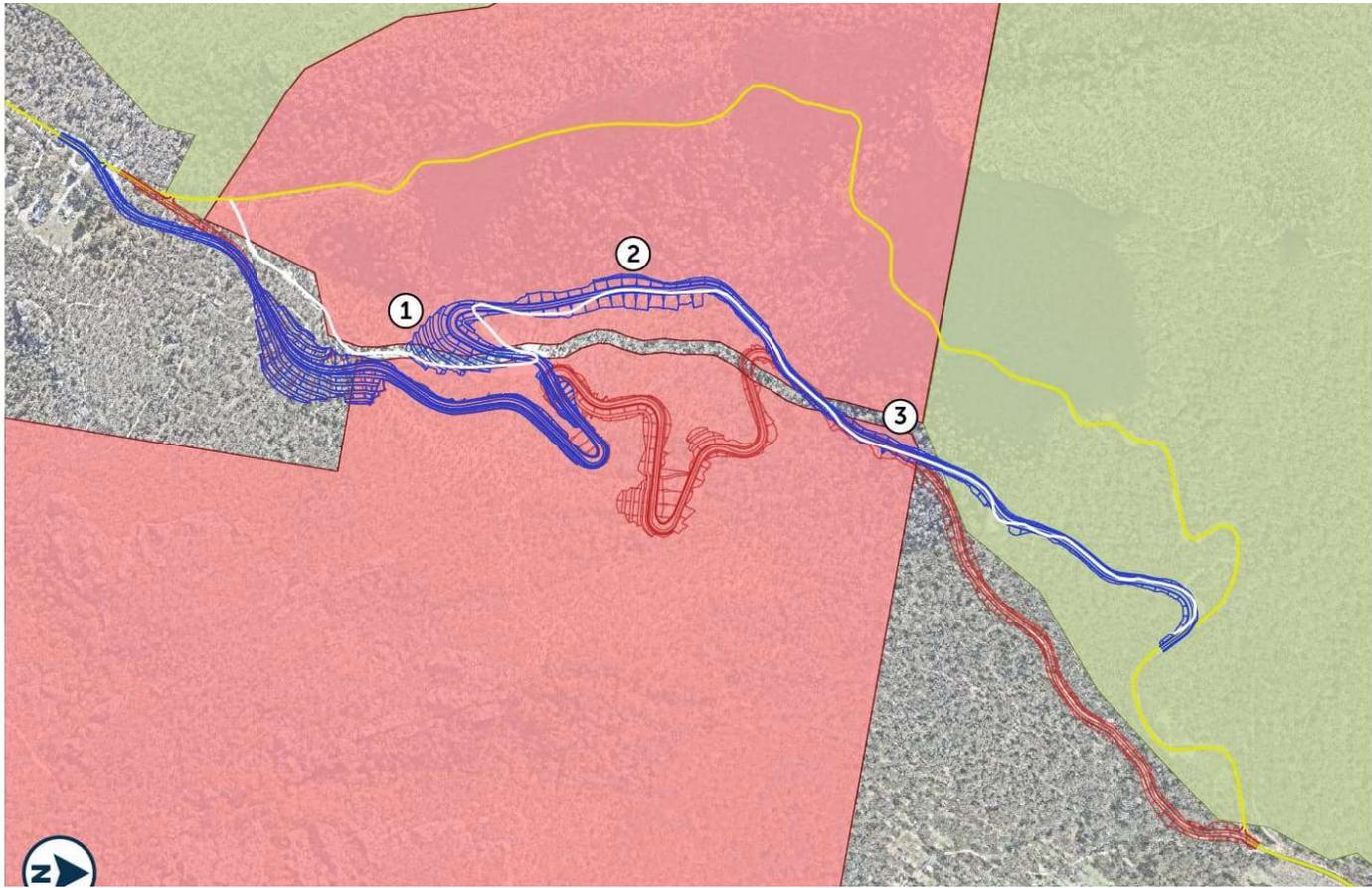
Constraints vs DS Option 3



Donkey Steps Alignment



Donkey Steps Alignment



Key considerations

- ① Second cutting is required due to the existing terrain. Similar depth with first cutting.
- ② Approx 10m fill over the existing. Works well with cut and fill balance.
- ③ Follows the donkey step track levels.

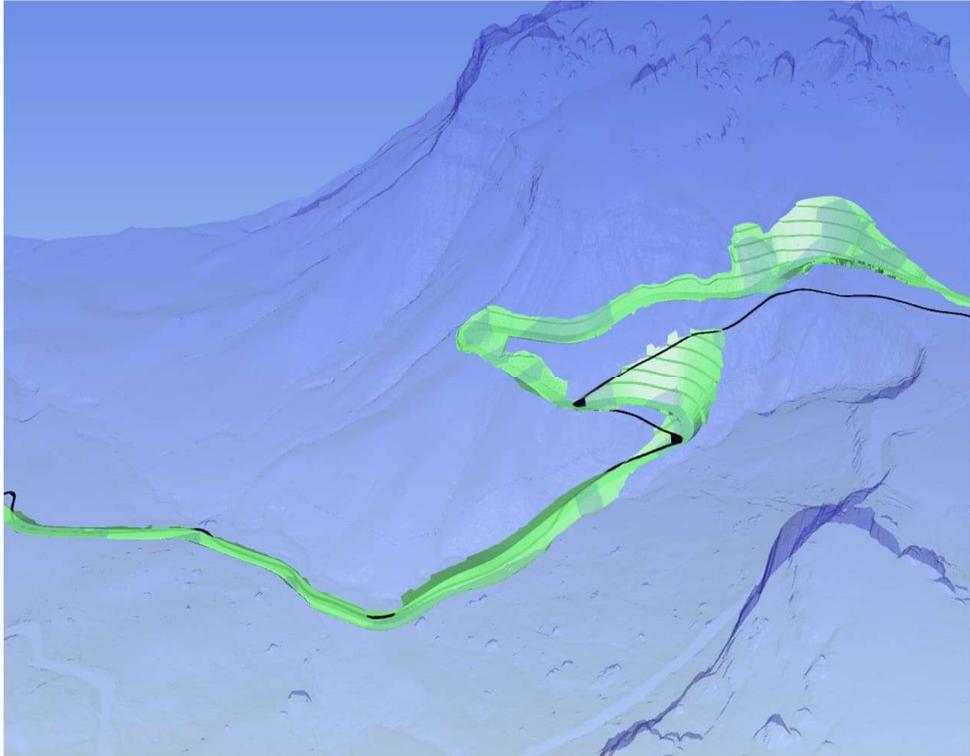
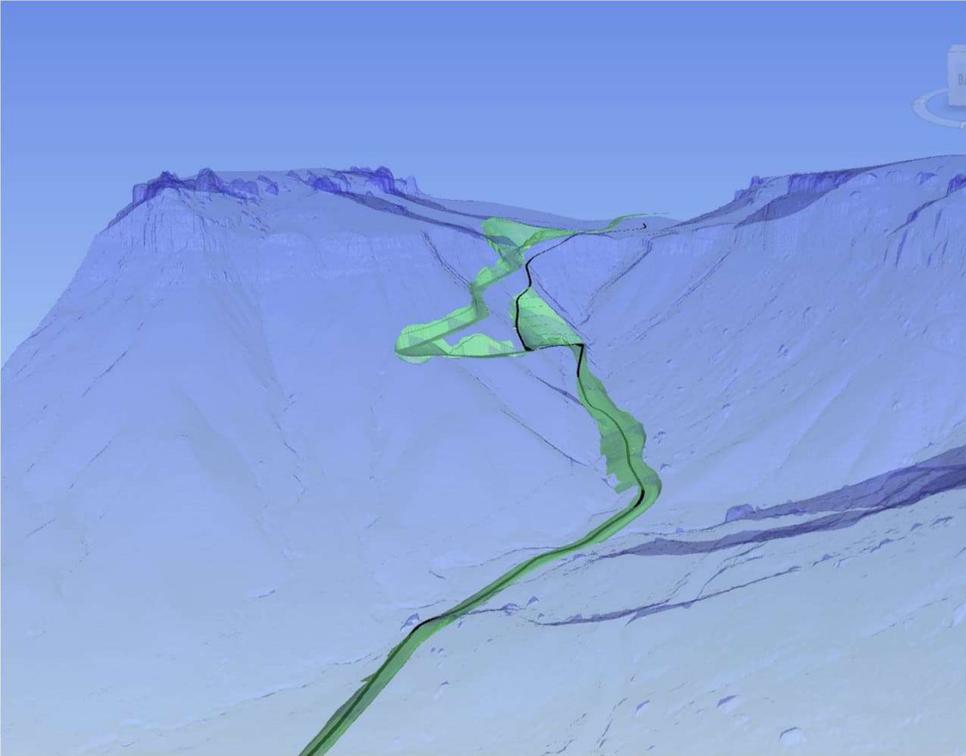
Legend

- Option 4
- Option 1D
- Existing Wolgan Road
- Donkey Steps

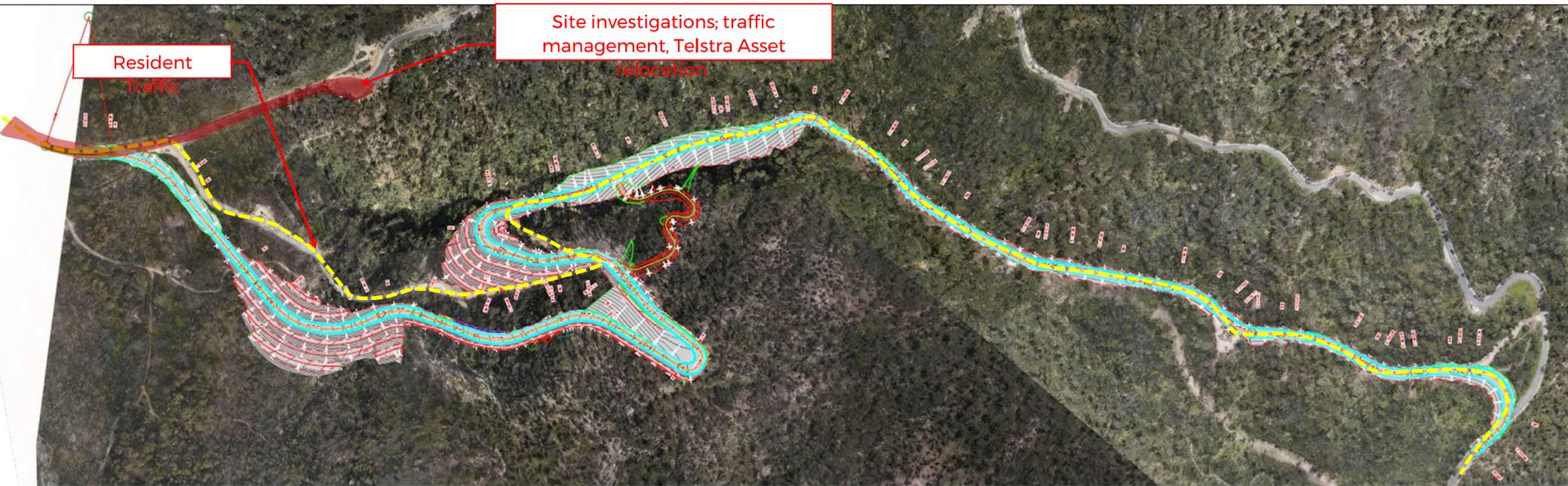
- NPWS Estate
- Aboriginal Place



Donkey Steps Option 4



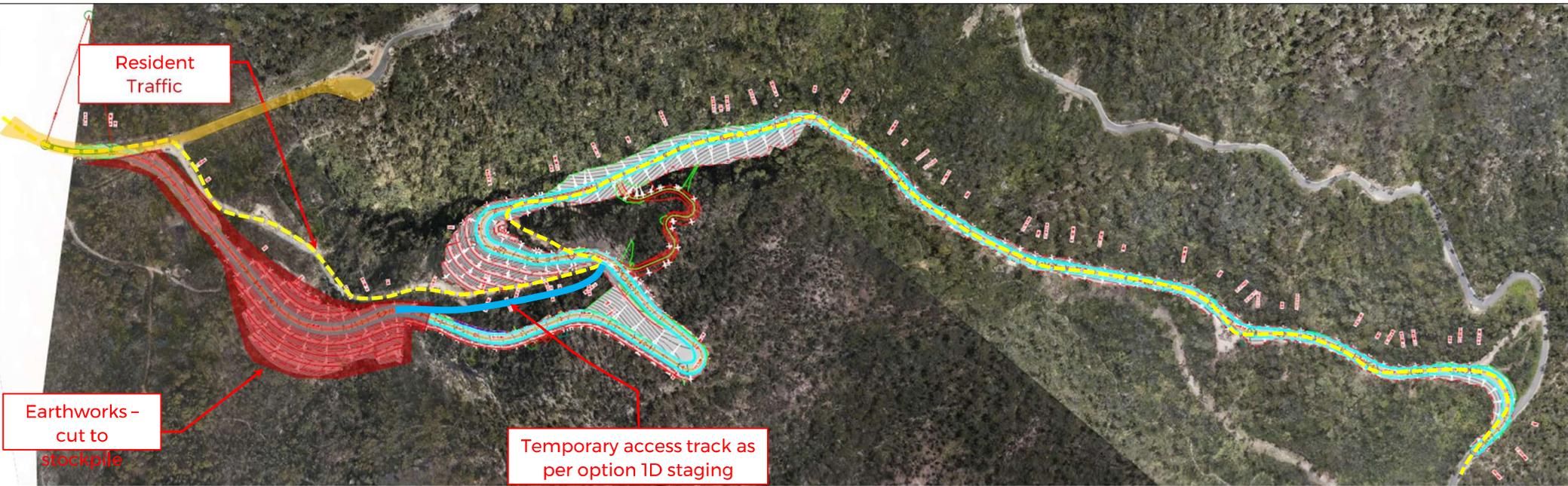
Construction Staging/Traffic Management



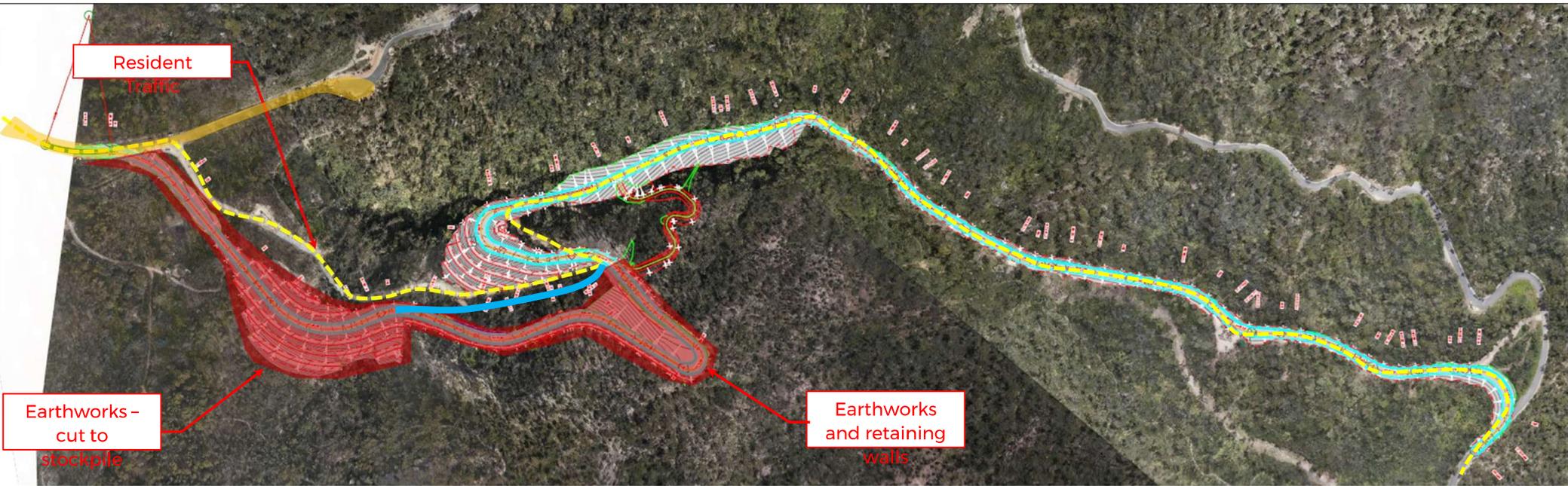
Stage 1



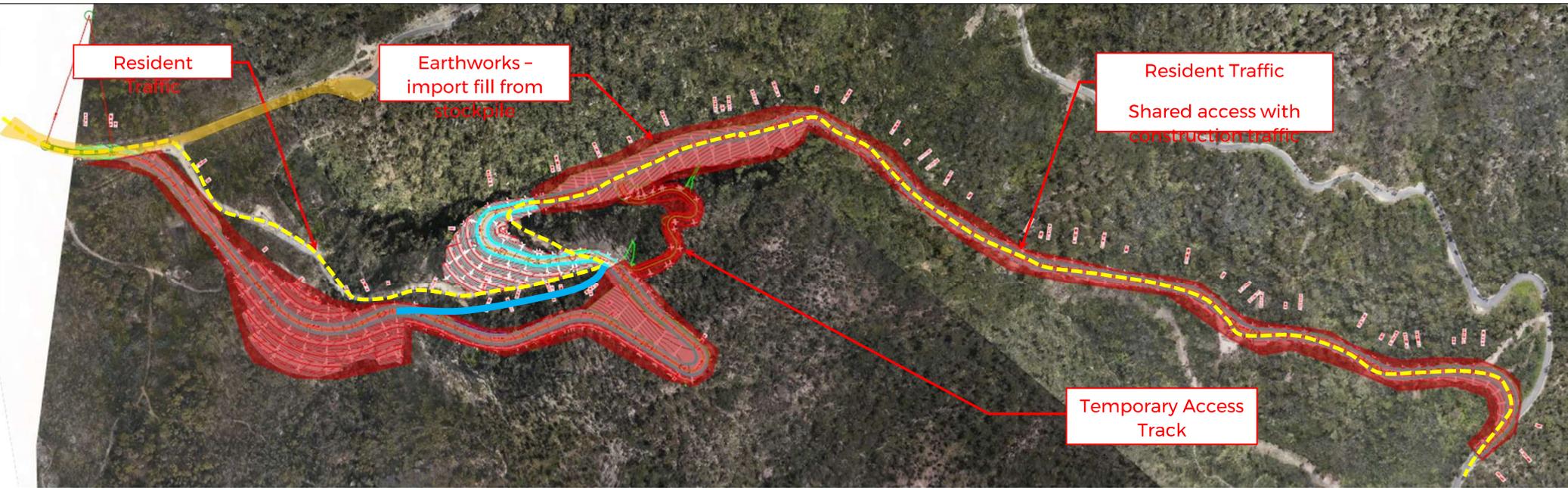
Stage 2



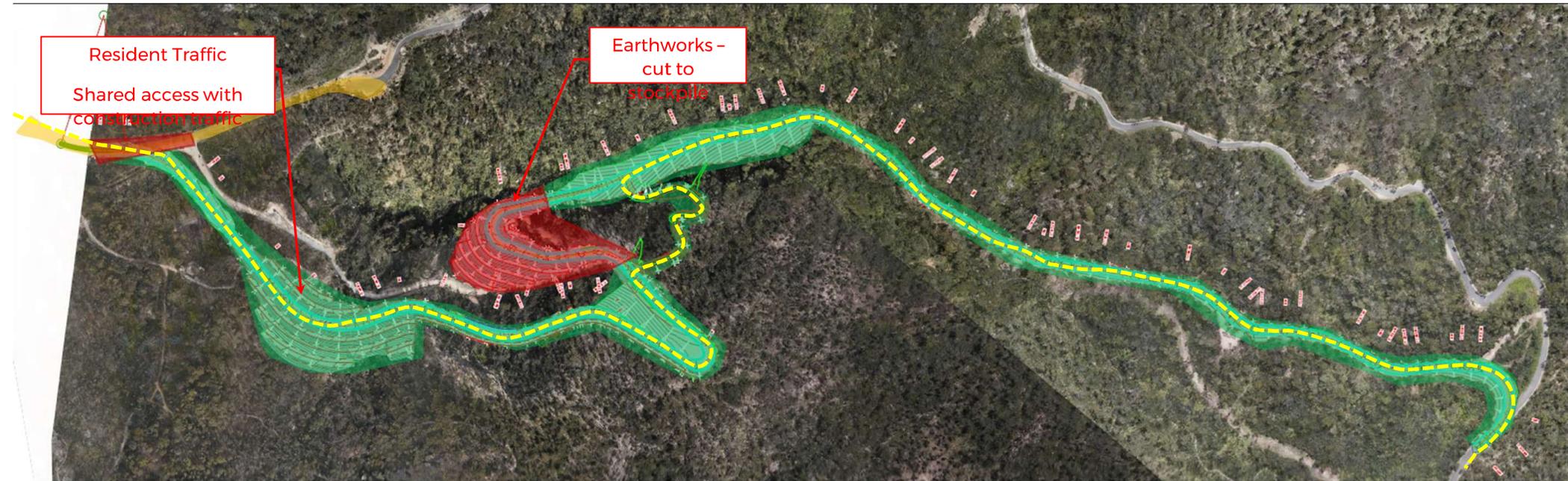
Stage 3



Stage 4



Stage 5



Stage 6

Constructability Benefits of Donkey Steps Alignment

- Significantly smaller clearing footprint
- Improved re-use of excavated material
- Reduced volume of excavated material to be disposed off site – less trucks along Wolgan Road
- Reduced number of large cuttings – large cutting present various risks to the project and potential program delays
- Reduced number of retaining walls and noisy works – less concrete to be transported into the project.
- Program benefit

Multi Criteria Analysis

Donkey Steps Alignment MCA

Criteria	Measure	Donkey Steps Alignment compared to Option 1D
Minimises cultural heritage impacts	• Area of Aboriginal Place impacted (m^2)	11% reduction in area
	• Archaeological sensitivity assessment	31% reduction in area
Minimises biodiversity impacts	• Area of design in undisturbed land (m^2)	24% reduction in area
Minimises construction time	• Expected length of construction program (years)	3 months faster
Minimises extensive visual impact	• Maximum height of rock cutting (m)	Same
	• Total retaining wall length (m)	Same
	• Length of included bridge (m)	Same
Minimises construction costs	• Construction cost	Within budget
Minimises operational cost	• Outcome of asset management assessment	Within budget
Minimises need for extensive temporary works during construction	• Fill retaining walls constructed in steep terrain (yes/no)	Option 1D has less fill wall
	• Excessive temporary access for rock benching (yes/no)	Same
Limits extent of earthworks and handling of surplus material	• Earthworks balance (m^3)	28% better balance
	• Length of rock benching (m)	13% reduction
	• Total cut volume (m^3)	16% reduction in volume
	• Total fill volume (m^3)	278% more fill (better for balancing)
	• Private Property Acquisition Land (m^2)	51% reduction in land acquisition

Environmental approval update

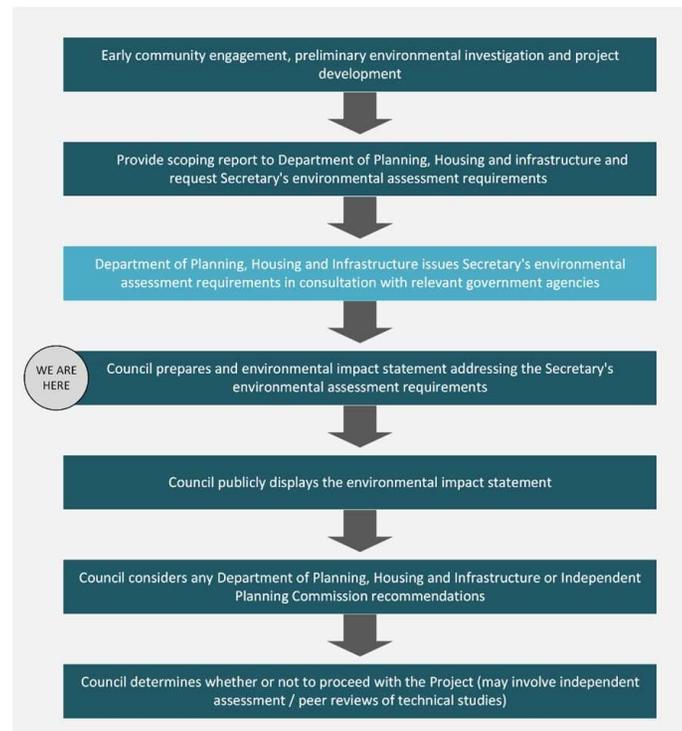


Planning Approval Update

Aboriginal engagement

- Engagement related to Aboriginal Heritage Impact Permit application
- Engagement with 11 Registered Aboriginal Parties (RAPs)
- Aboriginal Focus Group Meeting
- Specific engagement with Mingaan Wiradjuri

NSW approval pathway



Commonwealth approval pathway



Council Community Update

Council to provide input for any additional non-WRRP activities items in future updates, for example:

- a. Recent Donkey Steps maintenance
- b. Donkey Steps access gate
- c. Donkey Steps Vehicle Escorting
- d. Future northern Wolgan Road (valley floor) maintenance works
- e. Comms Connectivity

Questions

