

11.3.2. IS - 23/01/2023 - Wolgan Road Recovery and Alternate Route Construction

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Reference

Min. No. 22-207: Ordinary Meeting of Council held 31 October 2022

Summary

The Wolgan Road has been closed to traffic since early November 2022 because of immediate concerns regarding slope stability. This has stranded a community of about 150 residents. Businesses have also been gravely affected, including the Emirates One&Only Resort. This required that the Council act immediately, and that included using discretions available within the legislation to rapidly engage consultants to conduct works.

The Council's administration has developed a very sound working relationship with the NSW Government's disaster recovery agencies. It was quickly determined that the works to study the failure points, repair Wolgan Road and provide interim access to the valley qualified for funding.

Council has, for some time, been using the professional services of WSP Golder to study the geotechnical issues with the Wolgan Gap. They were engaged to assess the impacts of the major failure of the Wolgan Road (escarpments above and below), and the available remedial actions. In parallel, the Council also quickly scoped, designed approved and started construction of an alternate interim access. Public Works Advisory were engaged for project management services for the interim access. These appointments will exceed the tender threshold of \$500,000 but because of the urgency occurred outside a formal tender process.

Clause 55 (k) of the Local Government Act (1993) provides that an exemption to the requirement to tender can be made for contracts entered in the case of an emergency. These engagements satisfy Clause 55 (k) of the Act.

Because the Council was in recess for the Xmas and New Year period the Mayor, Councillor Maree Statham, was furnished with a report and approved (on behalf of the Council) the engagement of both WSP Golder and Public Works Advisory. The matter is now being reported to the Council to maintain openness and transparency.

This report also overviews the many actions that Council has taken to re-instate temporary access to the Wolgan Valley, and other initiatives to support the community.

Commentary

The Wolgan Road, adjacent to the Wolgan Gap, traverses incredibly difficult terrain. Upslope there are sheer rock cliffs and steep embankments. Downslope there is 200 – 300 vertical metres of vegetated embankments which support the road and its pavement.

Council identified the potential for geotechnical risk post-bushfire in December 2019 with the burn of all vegetation. Business cases and works programs were developed for state and federal funding of major repairs to the geotechnical aspects of Wolgan Road in the Gap. The value of these projects was approximately \$6 million and was outside the Council's financial capacity to deliver without external assistance. These applications were unsuccessful.

Since early 2021, the Lithgow LGA has been subject to significant and unprecedented rainfall. Over a rolling 12-month period, 150% more rain has fallen beyond that recorded since records began in the late 1800s.

Initially, failures were very isolated and slow moving. Expert, independent risk assessments demonstrated that the road could remain open, in a reduced capacity while design of the remedial solution occurred.

Over time, the failures continued to extend up and down the road. This made the design effort dynamic, with geotechnical assessments and designs requiring frequent revision. The difficult terrain also made this a highly technical and complex process. Hence, the investigation and design process has continued for 12 months.

Through this regular survey and monitoring process, Council identified upslope tension cracks (material pulling away from the greater slope) which are about 30 – 40 metres in length, 600mm wide and approx. 2 metres deep. These cracks show clear evidence of continued movement.

LiDAR surveys have shown that this movement is a real precursor to the large-scale failure of the Wolgan Road, with potential mobilisation of material in the order of 50,000 m², but perhaps up to 200,000m². The advice is that any vehicular traffic or other cause for vibration could encourage this failure to occur. With this knowledge, Council immediately closed the road to all traffic in November 2022. This hard closure remains in place.

Following the road closure, Council opened an emergency route through the use of a nearby National Parks trail known as the Old Coach Road. This carries its own risk (which is quantified and clearly understood by both Council and National Parks) and is limited to use by convoy only, with a maximum of 5 vehicles at any one time, facilitated by a skilled 4WD operator.

This is less than ideal as it greatly limits the independence of those who live and work in the Valley, with a significant negative social and emotional impacts. In recognition, Council commenced the urgent construction of an alternate route known as the Donkey Steps. This will be a Council owned and maintained trail, for use by residents only. Noting the terrain, this access will also be subject to some risk, however considerably less than either the Wolgan Road or Old Coach Road.

It is likely that the Donkey Steps track will be ready for use by residents in early February, with a decision taken recently to concrete surface the steepest section adding some weeks to the overall construction. Recognising that the Wolgan Road was closed in early November, and the Xmas/New Year period interrupted works, this is an exceptionally short time period for these works. Council, Public Works and Peter Gracey (the contractor) have excelled in their management and construction of this complex project in the most difficult of terrain. The support of the Mingaan Wiradjuri Aboriginal Corporation, who have assisted in assessment and safeguarding of any indigenous heritage, is also acknowledged.

Since construction of the Donkey Steps commenced, Council's geotechnical consultants have found that the nature of the Wolgan Road, which is built upon highly erodible material and subject to ongoing deterioration, makes it incredibly costly to repair with only short-medium term stability. Any attempt to maintain long term access would also come at a significant yearly cost. This is not a sustainable solution.

This risk-based information is currently being quantified as part of the development of a detailed report which will be peer reviewed by government and form the critical supporting document for the construction of a permanent alternative alignment. This report will be complete by Friday 13 January,

with a prompt review period immediately thereafter. Once this peer review period is complete, an information session will be held with the Council to discuss the content of the report.

In short, verbal advice is that the road cannot be repaired. In response, Council has immediately commenced work on the identification of an alternative, permanent route.

The following engagements have been made to facilitate this urgent work:

- Engagement of WSP Golder for ongoing geotechnical advice regarding:
 - The existing Wolgan Road and Council's management of the site,
 - Ongoing assessment of the construction of the Donkey Steps route,
 - Alternate route study to determine the most appropriate permanent alignment.

- Engagement of Public Works Advisory for ongoing project management of the Donkey Steps detour route and subsequent permanent repairs or construction.
 - Council lacks the resources to provide dedicated resources to this project, considering it requires the permanent site presence of engineering and safety personnel. Public Works are also an arm of the NSW Government through Department of Regional NSW.
 - Public Works are acutely aware of the complexities of the locality, with current contracts with National Parks and Wildlife Services associated with local National Parks assets.

WSP Golder have quoted \$600,000 for geotechnical design and support. Public Works Advisory (who have engaged Gracey and Son Earthmoving as a local subcontractor) have quoted \$1,580,531 for project management and physical works related to the Donkey Steps construction and subsequent upgrade.

Together, it is expected that costs for these services will approximate \$2,180,531 to the end of this financial year. Council staff have also met with principal staff of Transport for NSW, Public Works Advisory and Regional NSW to ensure their ongoing support, and de-risked of the project.

Council has received assurances that the full costs of construction for the temporary route will be met by the Natural Disaster Relief and Recovery Arrangements. Additionally, pending receipt and review of the Wolgan Gap Condition Report and the Alternate Route Analysis (including design and quantity survey), Transport for NSW have confirmed that the cost of the final restoration solution will be compensable under these same arrangements – subject to the works meeting relevant criteria. Early, unconfirmed estimates of the cost for this final solution fall between \$15 and \$20 million.

Other Services Provided:

While Council continues to lead the construction of the Donkey Steps, a variety of other services are being organised and provided to the community. This includes, but is not limited to:

- Ongoing weekly community meetings to keep the community informed of progress and involved in the development of access strategies and the alternative route analysis.
- Garbage and liquid waste removal.
- Fuel deliveries.
- Convoy services along the Old Coach Road.
- 2WD vehicle removal.
- 4WD driver training courses in anticipation of the Donkey Steps opening.

- Mental health and other well-being assistance (in collaboration with the Rural Adversity Mental Health Program)

As noted above, a 300-metre length of the Donkey Steps route exceeds a 30% grade. While concrete will be laid in late January to ease access and increase vehicle traction along this length, in the interim, access will be by 4WD only. For this reason, Council has arranged for 2WD vehicle removal and 4WD training courses, each provided by external contract.

While Council met the cost of the 4WD training, the 2WD vehicle removal will come at a cost of \$1,000 per vehicle, with this cost to be borne by residents.

It is understood that this period of significant disruption has caused a great deal of physical, mental, financial and social stress on all residents. It is suggested that the Council consider a \$300 subsidy of the \$1,000 vehicle removal fee. It is anticipated that approximately 30 vehicles may require removal. If this is the case, this subsidy will come at a cost of \$9,000 to the Council which can be accommodated within available funds.

Policy Implications

Nil

Financial Implications

- Budget approved - \$1,244,397
- Cost centre - 100737
- Expended to date - \$717,124
- Future potential impact - \$2,180,531

Legal and Risk Management Implications

Understanding the risk to continued access posed by the existing Wolgan Road alignment, immediate response to construct a detour route is required prior to implementing a permanent realignment.

This project has required substantial resourcing over the past two months. This has come at some cost in terms of delays or disruptions to other important asset and infrastructure works across the city. Once the Donkey Steps track is opened, council will need to moderate the resources it directs to the next phases of this issue (identifying, planning, designing, contracting construction of an alternate permanent access to the valley) until additional resources can be secured. The administration is preparing the documentation for an application for funding of these activities via disaster recovery funding. Positive discussions have been had with NSW Government representatives. The goal is to secure funding and move forward with minimal delay.

Attachments

Nil

Recommendation

THAT Council:

1. Note the appointment (and input to Council's 2022/23 works program and budget) of the Wolgan Valley access works via :
 - a. Public Works Advisory at an initial cost of \$1,580,531, and
 - b. WSP Golder at an initial cost of \$600,000.
2. Approve a single \$300 subsidy per vehicle to contribute to the costs of 2WD vehicle recovery from the Wolgan Valley.
3. Identify the re-instatement of a permanent resilient access into the Wolgan Valley as a key project within its IP&R documents and do all things possible to achieve this outcome as a matter of priority, subject to funding being identified and achieved.