



YORKE PENINSULA COUNCIL

Strategy for managing risk of B Double+ access to YPC's road network post HDS road network reviews.

Abstract

Council in May 2019 commissioned Phase 1 safety review from a HV operators' perspective of part of its road network. Such was followed up with Phase 2 February 2022. The safety review prioritised risk management measures according to a P1 to P4 hierarchy. P1 (Priority 1) issues posed very high risk in need of treatment. There were 152 localities associated with P1 issues. P2 (Priority 2) issues posed high risk but noted Council could accept the risk subject to a program of funding and P3(Priority 3) posed moderate risk that could be dealt with through routine maintenance. P4 (Priority 4) posed low risk. This document looks to define a way forward to balancing community road safety with the transport access needs and community capacity to pay.

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1. How the network is managed now

Council has a 3890km road transport network that is comprised of:

- 529km of sealed roads
- 2620km of gravel sheeted unsealed roads
- 523km of formed and graded unsheeted unsealed roads
- 218km of unformed roads and tracks

All of the above is currently NHVR and Council pre-approved for B Double access. Such pre-approval comes with standard conditions (i.e. 26m B Double fitted with Certified Road -Friendly Suspension at Higher Mass Limits HML on all commodity routes in the YPC LGA and subject to a 60km/hr speed limit on all unsealed roads

Access to the road network outside the above is governed by permit consideration on a case-by-case basis application through the National Heavy Vehicle Regulator (i.e. NHVR) who refer applications back to Council for route consideration and conditions of permit if permits are to be allowed (Annexure 2)

The conditions of use to a particular route for an OSOM- Oversize Over mass HV, Agriculture equipment and Special Purpose Vehicles vary in terms of; allowable route, time of day, the number of amber flashing beacon escort vehicles needed (i.e. preceding and following the permit holder), frequency of use, special requirements to fix damage done etc.

The current Transport Asset Management Plan has its 3361km of unsealed roads, of which 2620km are sheeted roads. The current level of road funding, achieving 28km to 30km of renewal per year, would require the unsealed sheeted wearing surface to last 87 years. Such is a significant mismatch with the current Transport AMP (Table 5.3) which has useful lives of the wearing course being between 15 years for a High Use Road to 30 years for a Low Use Low Wear Road.

2. Drivers for change of network access management and Community Consultation

The HDS engineering consultant Phase 2 review of the YPC unsealed road network revealed 12.7% of the network was affected by P1 risk issues at 152 locations, and additionally 23.1% of the unsealed network was affected by P2 issues over 280 locations (see annexure 1). The risk ratings P1, P2, P3 & P4 were assessed from the perspective of the HV user in terms of spatial travel path route safety deficiencies. The review did not take into account AADT.

Whilst the use of higher productivity vehicles could translate into lower numbers of HVs using the road network for the same amount of freight movement, as AADT grows coupled with increasing tourist light vehicle use, the associated likelihood of truck/ light vehicle collision increases.

Even though steps are now being taken to increase road funding for intersection improvements and the like, there is not likely to be the level of road funding in the future to fix all the P1 and P2 issues.

As Council now has an independent engineering assessment of network deficiencies, there is an acknowledged liability and need to mitigate risk.

The wider Community was invited through advertisement, website and Country Times newsprint media and through transport and agriculture stakeholder business networks to provide feedback to a series of questions and attend two workshops in 2022

What was apparent was:

- The majority did not want to change the status quo of blanket B Double access to the whole YPC road network.
- The majority want to maintain the size of the current road network and the shortest route possible.
- The majority are willing to pay 1 to 3% premium on top of general rates provided the same are dedicated to fixing identified road safety deficiencies.
- Some spoke of business having moved on from B Doubles to A Doubles + and believed A Doubles should be the new NHVR/Council pre-approved transport configuration for use on Council's current network.
- Some believed no further control measures are needed in view of minimal HV accident history to date.
- There was considerable support for minimising vegetation at intersections, apply speed restrictions to all heavy vehicles of between 40-60km/hour, and improve signage where necessary.
- The need for more education of the general public to look out for heavy vehicles.
- Some wanted a strategy to support A-doubles, 30m road trains, and access for the same without a permit system.
- Some commented to the effect that any revenue required to fix P1 and P2 issues should come from the rate increases that have already been applied to primary producers.
- Control the speed of all HVs (i.e. 26m B Doubles, 30m A Double road trains, semis etc.) on Council's road network.
- Possibility for broad acre land contributing at no cost to Council stockpiles of paddock limestone rock. There has been some of this occurring to date.
- The need to consider a NHVR gazettal notice subject to YPC conditions as an alternative to replacing a lot of the existing preapproved permit system.

3. Funding for P1 and P2 issues

Most of the issues arise on low use roads, but risk profiles are anecdotally changing with increasing visitor traffic and changing HV route usage as seen in AADT's (i.e. Cunningham Road less use where as much higher use of Point Annie Road).

There are only two known sources of grant funding available to Council. One is the South Australian Government's Special Local Roads Program (SLRP) which provides approximately \$20m annually dispersed across the State's 68 Councils. The other is through the Federal Government's Heavy Vehicle Productivity Program. Both programs are focussed on regional transport route significance and HV usage levels.

Intersection upgrades are where the big spend needs reside. Whilst there has been some increased levels of rate-payer funding, such may need to be increased depending on amount of use/relative risk and conditions of use. At present such is not factored into Council's Long Term Financial Plan (LTFP). Council's funds also need to be prioritised on the high to medium use roads and not diverted to low use or 'formed and graded' unsheeted roads.

The current percentage of operating and capital expenditure on Council unsealed road assets primarily benefiting primary production is much higher than the percentage of total rates paid by Primary producers. Such is summarised below and seen in Annexure 9. In 2023/2024 the balance is being adjusted back to deal with sealing and work to town related transport assets.

| | Financial Year 2021/2022 | Financial Year 2022/2023 | Financial Year 2023/2024 |
|--|-----------------------------|---|-----------------------------|
| Primary production % of Total Rates paid | 36% | 37% | 38% |
| % of total available capital and operational expenditure applied to unsealed roads | 46% | 67% + (i.e. does not allow for sealing applied to seals like Wauraltee Rd etc.) | 35% |

The current level of funding available to resolving P1 and P2 issues at present is the additional 3% of rates (i.e. approximately \$600k/ annum) provided by primary producer rate payers.

4. Strategy response options

Fundamentally the available responses to any situation are:

1. Do nothing.
2. Avoid the risk by fixing the issues.
3. Manage the risk.

what is clear is:

- Road use patterns are changing with roads that were thought to be low use are now medium to high use (i.e. Point Annie Road) because AADTs/ road use patterns are changing across the YPC road network.
- There is increasing tourism traffic across the peninsula as is seen in increasing AADT road use mainly in the south of YPC along beach connector roads like Lighthouse/ Daly Head/ Point Annie/ Corny Point Roads.
- Out of the 3361km of unsealed road network, at least 1020km are 3m to 7m in width not affording sufficient passing opportunity.

It is fair to say Council has been on a journey of engagement and doing what is reasonably practicable, and “do nothing” is not in the interests of public safety.

To avoid risk is the opposite end of options and requires very significant community expenditure, but such is unrealistic on account of the quantum of HDS indicated works and unlikely community willingness to fund.

To manage the risk and control the level of access and conditions of access seems a more practical and responsible approach. What can reasonably be achieved with current level of \$600k/ annum funding is:

- Some grader widening on crests to mitigate lack of sight distance on roads with poor geometric layout.
- Programs of some vegetation removal and control of the same at intersections to achieve improved sight lines.
- Placement of new HV signage on key roads to help increase tourist road user awareness of HV presence and increased education awareness sought through social media.
- Putting in place revised “right of way” signage to favour directions with the most traffic.
- More use of “Stop” signage in place of “Give way” signage to afford more driver time for risk assessment and decision on whether to proceed or not to proceed, particularly on Y-intersections and the like with poor road geometry and or sight distance issues.

A change to road access risk management by placing specific conditions on road access for YPC roads with P1 issues currently pre-approved for B Double HML access. Such conditions may be

- speed reduction to 30km/hr coupled with use of amber rotating hazard beacons front and back to trigger a caution response from oncoming traffic (in lieu of escort vehicles),
- no gazette or permit HV operation in wet conditions and no operation for the same outside of day light hours (i.e. between 5pm and 7am to cover winter). Note however this does not limit smaller truck use or gazetted B-Double to 26m operating at GML or less.
- Apply to NHVR for a route update requesting a reduced speed condition on the NHVR National Network map covering all YPC gazette or HML permit approved networks
- To encourage HV reduced speed compliance on the Yorke Peninsula would require a YPC education program to be done in conjunction with the NHVR map changes. HV road user education could take the form of additional signage on the entrance to Council roads (with the highest level of HVs) from the DIT State network major departure points, Council website news etc.

○

5. Suggested Strategy for way forward

At present;

- HVs using Council’s road network for freight or commodities (i.e. grain) and operating at GML are subject to the National Gazettal Notices. It has been suggested by some that there is minimal GML.
- B-Doubles seeking to operate at HML and A-doubles need to seek an NHVR permit to access Council’s network.
- Council has all of its commodity network (effectively all of its sealed and unsealed roads) pre-approved for B-doubles to operate at HML. This means the NHVR would issue a permit to use any of Council’s roads at HML subject to some basic conditions of having airbag road friendly suspension and operating at certain speed.
- Mapping, approved routes, gazettes, and permit conditions are now all on the NHVR website.
- The SA DIT RAVnet mapping is now a part of NHVR mapping.

Currently there are several ways of seeing what road use rules/ constraints apply to Yorke Peninsula roads;

1. Look at NHVR’s national notices <https://www.nhvr.gov.au/law-policies/notices-and-permit-based-schemes/national-notices>

2. Refer to the NHVR’s HV Operators.
<https://www.nhvr.gov.au/files/media/document/125/202212-0977-national-class2-b-double-operators-guide.pdf>
3. Go to NHVR’s route planner & mapping.

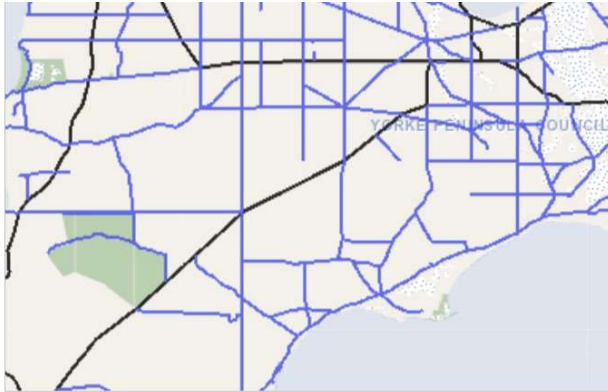
At the bottom left of the map is ‘Print’ icon (see below) which when pressed provides a listing of road use conditions attached to the blue colour coded roads on the YP network for a particular HV category.


Legend

- General Freight Route
- Commodity Route
- State Maintained Roads
- Steep Descent
- Safety Ramp
- ✖ Restriction
- ★ Star (Level crossing) Restriction
- LGA with Commodity Restrictions
- 🚚 DIT Safe T Cam Site


Tools

🖨️ Print
🔗 FAQ's
🎥 Training Video

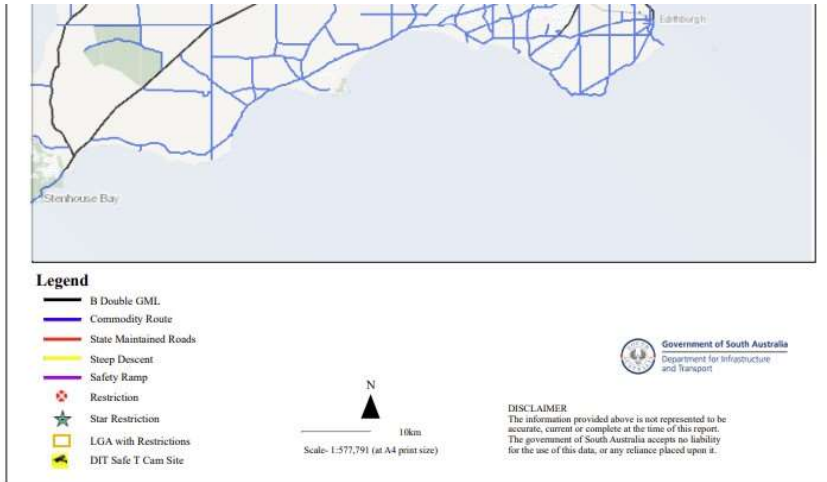





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The South Eastern Freeway, on the approach to Ac descent that enters a major intersection and cc Drivers need to use appropriate hill descent veh engine, jake or exhaust brake on, using the appr load. If control is lost, **use a safety ramp**.



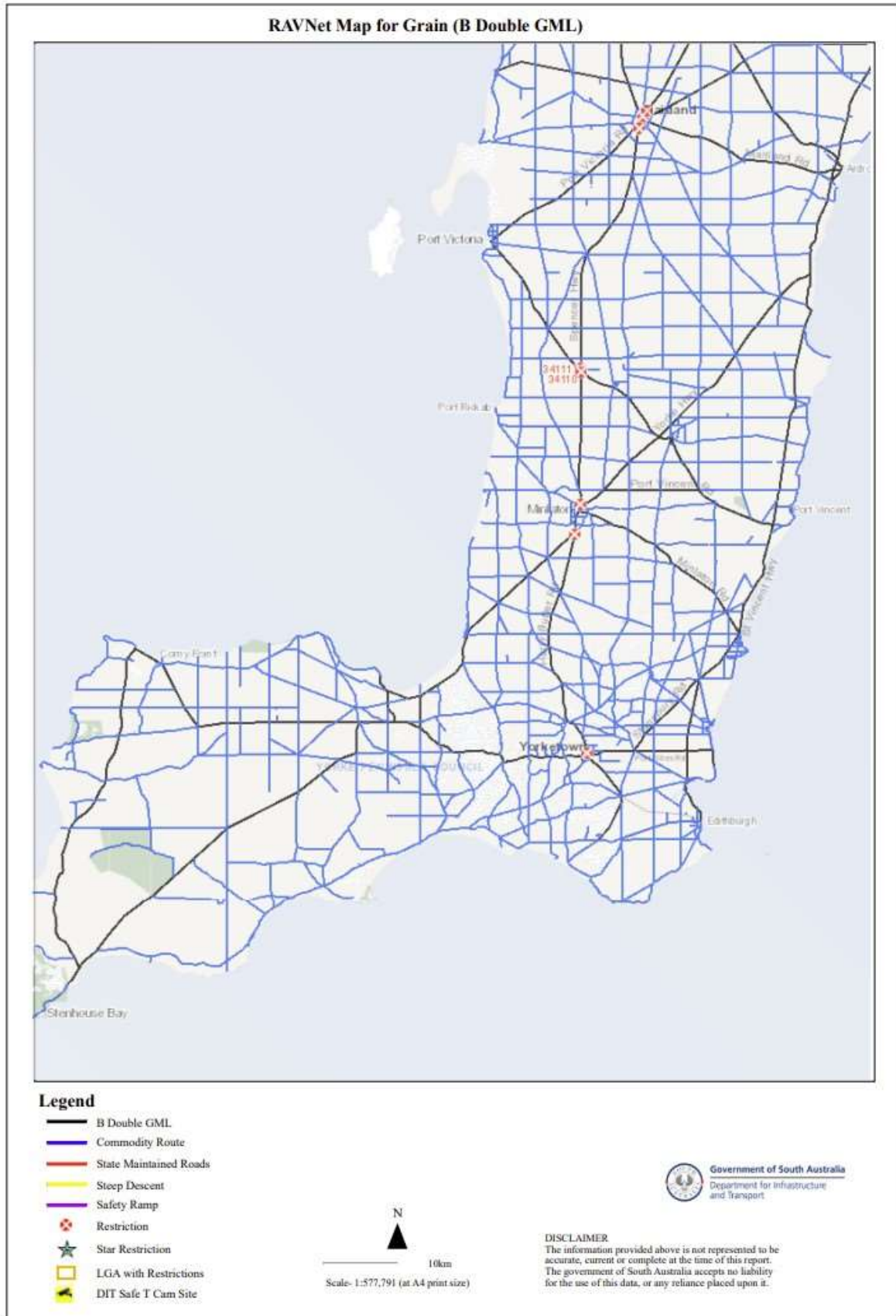


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DISCLAIMER
The information provided above is not represented to be accurate, current or complete at the time of this report. The government of South Australia accepts no liability for the use of this data, or any reliance placed upon it.

Restrictions

| Ref | Restriction Information |
|-------|--|
| 43731 | 80kph speed limit applies between Maitland & Minlaton, unless a lower limit is posted |
| 34110 | 80kph speed limit applies between Maitland & Minlaton, unless a lower limit is posted |
| 34111 | 80kph speed limit applies between Maitland & Minlaton, unless a lower limit is posted |
| 34113 | 80kph speed limit applies between Minlaton & Yorketown, unless a lower limit is posted |
| 33800 | 80kph speed limit applies between Minlaton & Yorketown, unless a lower limit is posted |



P1 and P2 concerns would be progressively dealt with via the tabulation below (i.e. ‘Tabulation 1- Other considerations’) and consideration of the following:

- Some grader widening on crests to mitigate lack of sight distance on roads with poor geometric layout.
- Programs of major vegetation removal and control of the same at intersections to achieve improved sight lines.
- Placement of new HV signage on key roads to help increase tourist road user awareness of HV presence and increased education awareness sought through social media.
- Putting in place revised “right of way” signage to favour directions with the most traffic.
- More use of “Stop” signage in place of “Give way” signage to afford more driver time for risk assessment and decision on whether to proceed or not to proceed.
- A change to road access risk management by;
 - Placing specific conditions on road access for YPC roads with P1 issues currently pre-approved for B Double HML access. Such conditions may be speed reduction to 30km/hr coupled with use of amber rotating hazard beacons front and back to trigger a caution response from oncoming traffic (in lieu of escort vehicles), no gazette or permit HV operation in wet conditions and no operation for the same outside of day light hours (i.e. between 5pm and 7am to cover winter). Such would require Council to provide NHVR with 28 days notice via a formal notice to NHVR for the roads to be affected, and once approved such changes would appear on NHVR mapping.
 - Coupled with above, YPC seek NHVR route update on the NHVR National Network map covering all YPC gazette or HML permit approved networks limiting unsealed road speed to a maximum of 50kms/hour to help improve safety and reduce road wear and tear. Additionally YPC to effect a road user education program to be done in conjunction with the NHVR map changes.

Tabulation 1- Other considerations

| Other Issues | Council Staff Comment | Council follow up if endorsed |
|---|---|---|
| <p>Desire by some for NHVR pre-approved A Double access or have such subject to gazettal.</p> | <p>When Council has issues with NHVR preapproved network for 26m B Doubles, it may not be prudent to expand the issue for longer HVs, but this is something that can be considered in the future.</p> | <p>Applications for A Doubles can for the present continue to go through the NHVR/Council case by case consideration.</p> <p>Speed restrictions of 30km/hr in towns and a maximum of 50km/hr on roads outside the town boundary</p> <p>Where the road formation width is less than 7m and there is little if any room for error for oncoming vehicles on YPC’s roads to navigate vehicle passing, both the light vehicle and the HV need to exercise the utmost caution. Whilst escort vehicles have been mandated in the</p> |

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| Other Issues | Council Staff Comment | Council follow up if endorsed |
|--|--|--|
| | | <p>past as part of permit conditions, a case has been put by HV lobby/ Elected Members to instead require HVs be equipped with front and rear amber rotating ‘flashing lights’, and for such flashing lights to be activated when travelling on P1 roads.</p> <p>Additionally sign post narrow roads with signage indicating the possible presence of HVs.</p> |
| <p>Future increased demand or higher levels of service (i.e. via mining or agri-business machinery).</p> | <p>Use of ‘User Pays’ Infrastructure Agreements.</p> | <p>Would need to be considered in the context of Council’s rating strategy.</p> |
| <p>Traffic growth and changing risk profile notwithstanding permits.</p> | <p>Council will continue to employ its traffic counters which deliver data not only on traffic numbers, and traffic types but also on traffic speed.</p> <p>Road categories and permit consideration should be dictated by relative road use (i.e. AADT), changing road conditions, and the changing road user unfamiliarity with problematic road geometry (i.e. mitigate risk generated from the weakest link/least skilled/least familiar road user, and do not rely on many accidents before implementing controls).</p> <p>Resourcing allocation, changes to permits, or changes to signage and or some changes to road widths at crests etc. will be prioritised relative to known AADT, changing network conditions, and known road user changes like increasing tourism road use, mine road use etc.</p> | <p>Council Assets teams to continue updating road use data and look to changes needed in road hierarchy and permit controls.</p> <p>Council to increase use of more HV signage on the presence of HVs on P1 and P2 routes. The Roads Working Group can advise more in this area.</p> <p>Make use of RACUS road defect visual data to help better assess changing conditions.</p> |
| <p>Maintenance renewal</p> | <p>Future resheet asset renewal works could consider P1 and P2</p> | <p>Asset and Works renewal planning consideration.</p> |

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| Other Issues | Council Staff Comment | Council follow up if endorsed |
|---|--|--|
| prioritisation on medium use roads. | issues as part of the asset renewal where possible (i.e. restricting future road widening to crests and bends). | |
| Sight distance lines across most of the YPC LGA through roadside vegetation encroachment on bends and at intersections. | Much of the initial response to P1 and P2's start with improving sight distance through vegetation management. Additionally signage could be employed to increase road user awareness of heavy vehicles (not just during harvest with all the on farm grain storage and cartage throughout the year). Initially the Primary Producer 3% funding for intersection improvement work should focus on vegetation encroachment of sight distance and signage. | Asset and Works renewal planning consideration. |
| Which roads deserve Council wearing surface resheet renewal. | Resheeting should be restricted to high and medium use roads with most consideration of prioritisation given to past accident history and objective measures of use like AADT | <p>Discussion and input from the Roads Working Group.</p> <p>Update of Council's Transport AMP in the 2024.</p> <p>Council continues to listen to stakeholder and industry on changing use patterns to help Council confirm direction (i.e. like at the Yorketown and Maitland workshops).</p> |
| Best use of the resources we have. | <p>The direction for road renewal capex application from 2024 onwards to help Council achieve longevity and improved road surface performance is best addressed in a future update of Council's Transport Asset Management Plan which speaks to changing priorities and what quantum of capex road resheeting can be done with funding provided.</p> <p>Similarly pulling back on patrol grading 6 days per week every week of the year has to be reconsidered and staff/machinery</p> | Internal YPC work team reorganisation. |

Yorke Peninsula Council

| Other Issues | Council Staff Comment | Council follow up if endorsed |
|--------------|---|-------------------------------|
| | either redeployed or additional resource like water carts provided to help ensure work done is effective. | |

