

Our ref
Your ref
Enquiries Mark Mitchell

Department of
Transport and Main Roads

13 October 2017

Ms Melissa O'Brien
National Transport Commission
Level 15/628 Bourke Street
Melbourne VIC 3000
mobrien@ntc.gov.au

Dear Ms O'Brien,

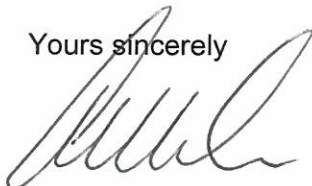
Thank you for the opportunity to respond to the "Assessing the effectiveness of the PBS scheme" discussion paper.

TMR has reviewed the discussion paper and is generally supportive of most of the observations and proposals contained in the paper.

A list of "General Comments", together with a table of "Specific Comments" is attached to this letter.

Should you require any further information, please contact Mr Mark Mitchell, Director (Heavy Vehicle Policy), on (07) 3066 1249 and he will be pleased to assist.

Yours sincerely



Andrew Mahon
Acting General Manager (Transport Regulation)

Enc(2)

Attachment 1

"Assessing the effectiveness of the PBS Scheme Discussion Paper – August 2017"

General Comments

- Overall the paper provides a good summary of the advantages and issues with the scheme. Including a discussion of road manager perspectives would assist with providing further insight on the effectiveness of the PBS scheme. In particular TMR would support exploring the establishment of as-of-right PBS networks at relevant mass limits to reduce the need for permits.
- Some sections of the report do not adequately recognise the responsibility of the road manager to manage access without compromising public safety or the useful life of the road asset (for example, sections 6.4 and 6.6 and the case studies in Appendix C). Also, whilst the report references "Road Manager" frequently, for example an excerpt from the report: *"For Road Manager: Agree to allow as-of-right access for PBS vehicles within the declared road network and update maps regularly in the NHVR Journey Planner & Access Portal"*, we need to consider these recommendations carefully including resourcing implications at a District vs State-wide level.
- The paper is unclear on how the development of a 'nationally harmonised infrastructure capability assessment framework' would relate to the existing PBS Scheme Network Classification Guidelines published by the NTC in 2007. Any change to the guidelines or assessment framework could potentially impact our access decisions, and/or potentially highlight existing deficiencies on our as-of-right B-Double and Road Train networks.
 - Some caution will however need to be exercised with such a strategy. Infrastructure capability is not just determined from the inherent infrastructure properties (which may be nationally consistent) but also significant contextual factors (including specific environments) that graduate the capability of otherwise identical infrastructure. Infrastructure capability is also heavily influenced and determined by the infrastructure management and operational framework that is applied by individual jurisdictions. This latter component is not nationally consistent. It is influenced by availability of resources, the relative policy environment and the specific priorities of both road manager organisations and the government for particular jurisdictions.
 - In seeking to find a 'common base', the concern is that a 'low' capability assessment for infrastructure will be agreed that does not utilise the specific advantages that exist within each specific jurisdiction's asset management frameworks. The alternative 'higher' capability assessment would generate some infrastructure capability risk for jurisdictions. This risk will either need to be absorbed by jurisdictions (and which may not be manageable or acceptable to the jurisdiction), or require management by an alternate entity.
- The paper describes the challenges faced from the perspective of owners/operators in obtaining access to the network. However it does not explain well the challenges faced from a road manager's perspective. It would be

of assistance to have some words to explain these and some case studies to examine the situation from a road manager's perspective. In particular the noted lack of satisfaction or access barriers identified by industry may be a mirror to, and indeed be resolved by addressing, issues with the PBS scheme experienced by road managers. As examples, some specific issues from the road manager's perspective include:

- The high level of variability between PBS vehicle configurations for 'similar' types of vehicles/ task. The concern is that there often appears to be no apparent productivity, innovation or other performance efficiency for the variation, however the need to assess all such vehicles leads to considerable assessment burden for road managers, which has the undesired effect of slower approvals for the high performance vehicles to enter the network.
- Concerns about the adequacy of the current PBS infrastructure standards (the lack of a permanent pavement standard and the applicability of some aspects of the bridge loading formula), results in the need for greater road manager assessment than is desirable, and impacts on both the sustainability of the PBS scheme and the level of certainty for industry and operators. This in turn poses a risk for industry and potentially has limited the effective uptake of the scheme.
- Concerns about the lack of specificity between a PBS vehicle approval (that often can include more than 20 vehicle variations on the one vehicle approval) and the actual vehicle that is applying for an access permit (IE the permit application does not indicate which variant is the permit vehicle). This lack of clarity often results in the need to assess each of the variations, which leads to increased assessment workload and delays in providing access approvals. A further issue is that notwithstanding the common vehicle approval, the assessment can produce different access assessment results for different variations. This creates further workload and potentially inefficient accesses through the process of determining which assessment result is to be applied to the permit application.
- Concerns about the relationship between vehicle approvals and how a vehicle performance has been assessed and the likelihood of the actual operation of the vehicle matching the environment that the vehicle was assessed. This is particularly the case when a vehicle has been assessed with a lower threshold level in order to comply with a performance standard. An example, and a frequent occurrence, is where a PBS vehicle is apparently designed and then assessed to operate at 'sub GML' masses, even if the vehicle is then required to operate only partially loaded. This appears mostly to be driven to achieve compliance with a 'tier 1' bridge loading formula, and despite the vehicle then having no productivity benefit (and possibly less productivity) than a prescriptive equivalent vehicle. Often there is no indication that the configuration is in any way reflective of how an operator intends to use the vehicle, as the assessment parameters are provided by the assessor and not the operator. This practice creates a reversal of responsibility and a substantial need for increased enforcement activity, or the imposition of on board mass management to ensure that vehicle operation remains compliant with its vehicle approval.

- Concerns about some PBS assessment practices, related to the issue immediately above, generates additional assessment burden for road managers. This is necessary to manage infrastructure risk resulting from vehicle approval including parameters that appear outside the intent of the PBS scheme. For example the frequent practice of PBS assessors to apply increases of 0.5 tonne for a tandem axle group and 2.5 tonne for a tri-axle group to 'sub GML' axle group masses as a way to determine HML access for a 'tier 1' vehicle with sub GML axle masses, appears to be inconsistent with the PBS scheme. This is both in terms of the scheme intent and the actual wording of the HML scheme within the Heavy Vehicle National Law. Beyond this issue, applying the increases mentioned above causes a greater relative impact on bridge structures than standard HML practice. To manage such risk, a road manager either must assess tier1 access applications against all bridge inventory, or choose to absorb the additional risk caused by the practice.
- Appendix C.2 of the discussion paper includes iOR Petroleum's 40m PBS AB-Triple operating between Toowoomba and Roma as a successful case study. **This is inconsistent** with our current position regarding PBS Level 3B access on the Warrego Hwy. The first permit for the iOR vehicle was issued by the NHVR with consent from TMR's Heavy Vehicles Road Operations Program Office (HVROPO) in March 2015 and has been renewed since then without TMR District consent. TMR would **strongly recommend** that the case study either be removed from the report, or amended to clearly state our current position for future access.
- It is advantageous to review the operations of PBS vehicles as they have been around for 10 years now and there is good evidence as to how they have been operating.
- Currently there are 5000 PBS vehicles – 3000 have been approved in past 3 years.
- It is not clear on what the "hire and reward" sector is (the sector with most PBS vehicles).
- The paper declares that PBS vehicles have had a 46% less major crashes (insurance claim > \$50K) compared to non-PBS vehicles/km travelled. Can you provide further information on the accuracy of this claim, including sample sizes and how the data was collected?
- Possible improvement of developing nationally harmonised infrastructure capability framework. This has the potential to make assessments more consistent and faster approval process, using "in principal approvals". We have already done a number of "in principal assessments" which basically look at the proposed route and say that we would not approve if an application was submitted.
- They predict 115 lives will be saved by PBS usage in the next 20 years.
- Develop a national harmonised bridge assessment tool.
- There is a desire for road manager to allow as-of right access for PBS vehicles within the declared networks. I am not sure how this can be easily applied as there are such a variety of PBS vehicle designs which have different operational characteristics which would make it difficult to have a blanket as-of right. This

could perhaps work for certain common PBS types such as truck and dogs or longer B-Doubles.

Comments in regards to the Related to Section 6.5 Role of local Government – first and last mile access:

- Local governments are responsible for providing consent for access to the 'first and last mile' local roads that vehicles use to access pick-up or delivery points.
- Consideration should be given to local governments/councils in relation to their available resources and skill set to undertake assessments.
- Which may result in a perception of refusal/objection to be on the 'safe side'.
- Resources/technical assistance to be provided by NHVR to ensure local governments with limited resources are able to quickly gain access to support and assessment.

Attachment 2

"Assessing the effectiveness of the PBS Scheme Discussion Paper – August 2017"

Specific Comments

Item / Paragraph	Details	TMR Comment
3.1.1 Figure 4	Alignment of "Popular PBS Vehicles" with "Prescriptive vehicles replaced".	It is appropriate to compare 26m B-Doubles with 30m PBS 2B A-Doubles as they are both supposed to be able to operate on the PBS 2 network and PBS A-Doubles are being "sold" as a more efficient combination when compared to B-Doubles.
4.1.1 Table 2	Average annual major crash rates for conventional vs PBS vehicles 2013-16.	Table should be reworked to show a more accurate comparison and inconsistencies in data addressed. For example: B-Double 9.4 crashes per 100 million km vs PBS A-Double 14.0 crashes per 100 million km. – Why? It would be helpful if a review of the causes / mechanisms of the crashes could be reported too.
5.1 High level analysis of results	The NHVR advises that its Journey Planner and Access Portal maps are indicative and do not reflect the actual PBS networks, nor do they include all innovative vehicle types such as A-Doubles.	Although there was / is a B-Double network, there has never been an A-Double network. A-Doubles should be assessed as PBS vehicles and their routes planned accordingly. The B-Double network was first determined before the respective PBS networks and to a different set of standards. In Queensland, the PBS 2A network was declared to be the same as the B-Double network without further assessment. This makes it difficult to extend the PBS 2A network to PBS 2B as further assessment is required.

Item / Paragraph	Details	TMR Comment
		Rather than extend the PBS network, it highlights the shortcomings of the existing PBS "A-Level" networks.
5.1 High level analysis of results	Industry feedback indicates that the NHVR Journey Planner is not yet sufficiently sophisticated to advise industry to use the approved network based on the inputs.	Is the new NHVR "Route Planner" any better? Has there been any feedback from industry on this?
5.3 Government stakeholder feedback	Receiving detailed technical results of a new vehicle design, beyond the information currently included, would allow road managers to undertake a risk-based approach to allow access to roads not currently mapped as PBS network.	Supported. Although the increased workload that this would place on assessment staff should be noted.
5.3 Government stakeholder feedback	Changing current bridge assessment approach to infrastructure capability assessment framework. At present the focus is on an individual vehicle's suitability to travel over a bridge. Changing this to an infrastructure capability assessment will eliminate the need for multiple assessments of the same bridge for similarly looking vehicles.	<p>With the status of some of Queensland's bridges, a number of bridges need to be individually assessed for specific vehicle types and loading configurations. Instituting an infrastructure capability assessment at this stage will impact adversely on the flexibility of assessments.</p> <p>The comment presupposes a benefit that is unlikely to exist. TMR has undertaken extensive analysis of its bridge infrastructure capability over the past 5 years, and is arguably better positioned than most jurisdictions in terms of its understanding of its infrastructure capability.</p> <p>The results of this work have indicated that for many PBS vehicles the best level of access is achieved by bespoke access for the vehicle.</p>

Item / Paragraph	Details	TMR Comment
		<p>Creating networks for 'similarly' looking vehicles without assessment may mean that only lower operating masses can be achieved. For example, a recent exercise by TMR indicates that broad based access for PBS A-doubles can only be achieved at operating masses at around 71t. Such an operating mass could be allowed for 'any' A double that complied with its relevant tier 1 bridge loading formula.</p> <p>A higher level of operating mass can be achieved for a 'selection' of A-Doubles that comply with relatively defined axle configurations. However the highest level of access can be achieved for a 'specific' A-Double that has been assessed for a specific route.</p>
5.3 Government stakeholder feedback	Supplying accurate tare weight and individual axle group loading for vehicles will allow road managers to more accurately assess a vehicle's suitability to travel over a bridge.	<p>Agreed. - Supports TMR's position above.</p> <p>Application of this approach could however be problematic in terms of the ability of vehicles to access HML through the PBS scheme as it may result in an increased number of PBS vehicles requesting GML access to the network at less than full GML axle masses.</p> <p>Section 3, Sch. 5 of the <i>Heavy Vehicle (Mass, Dimension and Loading) National Regulation</i> requires that for a vehicle to be eligible to operate at HML it must be permitted to operate at GML at full GML axle group masses.</p> <p>This proposed approach may enable more PBS vehicles to gain approval to cross bridges, but result in less vehicles being eligible to operate at HML.</p>

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5.3 Government stakeholder feedback	A number of states and territory agencies did not support the ability of the NHVR to exempt a PBS design from complying with one of the 16 PBS safety standards. These jurisdictions believed that such exemptions could compromise infrastructure and increase the likelihood of minor inadvertent impacts on roadside infrastructure.	Agreed. – The individual jurisdictions, knowing their own networks, would have a better idea than the NHVR as to which PBS safety standards (if any) could be exempted from compliance.
7.3 Evaluation of the PBS scheme's effectiveness	Performance measure: Safety	Although the figures provided show that the PBS scheme has been effective in improving safety in freight transport, it would be in the interests of both Safety and Innovation for the reasons certain types of vehicles such as A-Doubles and AAB & BAB Quads performing worse than other combinations being investigated and reported.
8.1 Proposed actions	Sector: Access <i>"This work can be supplemented by developing and publishing a bridge database to support efficient, accurate, timely and consistent heavy vehicle access management decisions for all bridges including local roads. Publishing this data allows industry to self-assess their vehicle's required routes against the maximum capabilities of infrastructures on those routes."</i>	While, at first this may appear to increase efficiencies in the application process, the avenue for requesting assessments of bridge structures, should not be closed. Many bridges in Queensland are operating at close to their design capacities and entries into the bridge database would have to be conservative. The operator should still have the option of requesting a bridge assessment if the proposed vehicular combination is close to the listed capacity.
8.2 Suggestions for consideration by	Encourage local governments to approve the use of PBS vehicles as a better alternative to prescriptive vehicles.	This is already happening in Queensland, with local government assessors receiving regular training from NHVR.

Item / Paragraph	Details	TMR Comment
NHVR and road managers	Develop nationally harmonised operating conditions for different PBS vehicle types, network levels and mass limits for use in both state and local roads.	Road manager operating conditions should remain the responsibility of jurisdictions.
	Substitute existing in-principle assessments by issuing permits with a delayed start date, unless there are unacceptable levels of changes in vehicle design, mass limits, routes or PBS safety and infrastructure performances.	<p>Supported.</p> <p>Operators need the certainty of a permit, rather than the “we can’t think of any objections at present” of the in-principle support.</p> <p>Consideration should be given to a preference for approved routes for a PBS vehicle instead of full network approvals to expedite the process for confirming no changes in infrastructure performance. However the preference and benefits of network are noted. To expedite network levels of access may mean that less access sensitive operational masses need to be considered.</p> <p>There may be some challenges for determining ‘unacceptable’ levels of changes in vehicle design. Recent work by TMR has observed that minor variations in vehicle spacing configuration between ‘similar vehicle type’ can have a significant effect and result in network access differences. This is despite the apparent similarity of the vehicle design (for example, between A-Double configuration with the same overall length).</p> <p>This is especially the case for vehicles that require a tier 2/3 assessment.</p>

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	Accelerate the development of the strategic freight network and work done on major and popular highways (Hume and Pacific highways) to simplify the task of managing heavy vehicle access for road managers.	Access decisions need to be made with road safety as the paramount consideration. In many situations, more liberal access can be limited by available funding for road safety mitigation requirements.
	Address the lengthy and expensive PBS approval process.	Could be assisted with extended use of "pre-approvals".
	The NTC notes a number of survey respondents are concerned about the inconsistent advice provided by the NHVR call centre for PBS permit applicants	More rigorous and comprehensive training of assessment staff could help to address this issue.