

# DISCUSSION PAPER

## A MASS MANAGEMENT SCHEME FOR WESTERN AUSTRALIA



## INTRODUCTION

Prior to the 2008 State Election, the Liberal Party made a commitment to implement reforms to the road transport sector. These reforms complement the Government's broader economic reform agenda which is focused on enhancing productivity growth and lifting workforce participation – the keys to improving the living standards of all West Australians into the future.

Western Australia's road transport networks include more than 17,500 km of freeways, highways and main roads, and a further 130,000 km of local government authority roads. WA's economic growth and the creation of jobs depend on its international competitiveness, which needs to be supported by good transport connections.

In February 2009, the Transport Minister, Hon Simon O'Brien, MLC announced the formation of the Ministerial Heavy Vehicle Advisory Panel (MHVAP) to provide advice on issues in the road transport industry.

The Ministerial Heavy Vehicle Advisory Panel has provided the leadership for this Discussion Paper on a Mass Management Scheme for heavy vehicles in Western Australia.

## MASS MANAGEMENT SCHEME

It is proposed that the current Certified Weighbridge Mass Management Scheme (CWMS) and the Concessional Loading Bulk Products Scheme (CLS) will be rolled into a new framework and the current mass levels and permit conditions will be reviewed. The new arrangements will be known as the **Mass Management Scheme (MMS)**.

The Mass Management Scheme will operate as a new **mass management module** under an expanded WA Heavy Vehicle Accreditation system.

This Discussion Paper outlines the framework of the proposed MMS and seeks comments from the transport industry and the broader community.

It is proposed that **Industry Specific Schemes**, such as the Harvest Mass Management Scheme, Livestock Concessional Loading Scheme and the Import and Export Container Scheme will continue to operate under the current arrangements.

At Appendix 1 is a list of definitions.

**CURRENT NATIONAL CONCESSIONAL SCHEMES OPERATING IN OTHER PARTS OF AUSTRALIA**

	<b>Product</b>	<b>Tandem axle group (fitted with dual tyres) weight permitted</b>	<b>Tri axle group (fitted with dual tyres) weight permitted</b>	<b>Routes of operation permitted</b>	<b>Vehicle configuration restrictions</b>	<b>Entry requirements</b>
<b>Concessional Mass Limits (CML)</b>	No restrictions	17.0 tonnes	21.0 tonnes	State-wide unless prohibited by sign or notice on road	Combinations not exceeding 55 tonnes *1 tonne  Combinations exceeding 55 tonnes *2 tonnes  * Maximum mass limit spread over the combination	NHVAS accreditation required  Proof that suspension systems functions according to specs and ARTSA Air Suspension Code
<b>Higher Mass Limits (HML)</b>	No restrictions.	17.0 tonnes.	22.5 tonnes	Route restricted	Vehicle types available nationally	As for CML plus approved management systems with external audit requirements

## CURRENT WESTERN AUSTRALIAN CONCESSIONAL LOADING SCHEMES

Transport operators in WA currently have the choice of complying with the regulated mass limits (6 tonnes on single-steer, 16.5 tonnes on tandem-axle group and 20 tonnes on tri-axle group), or applying for membership of one of the four concessional loading schemes available to accredited operators.

	<b>Product</b>	<b>Tandem axle group weight permitted</b>	<b>Tri axle group weight permitted</b>	<b>Routes of operation permitted</b>	<b>Vehicle configuration restrictions</b>	<b>Entry requirements</b>
<b>Certified weighbridge mass management</b>	No restrictions	17.0 tonnes	21.5 tonnes	State-wide or as per vehicle configurations routes	For full details see Appendix 2	For full details see Appendix 2
<b>Import and export container scheme ***</b>	ISO Shipping containers only	18.0 tonnes  Note: Mass only permitted on the motor vehicle 'drive axles'	27.0 tonnes  Note: Mass only permitted on one trailer within the combination	Routes very restricted	For full details see Appendix 2	For full details see Appendix 2
<b>Livestock concessional loading scheme</b>	Livestock of all types permitted	18.5 tonnes	23.0 tonnes	Minimal route restrictions	For full details see Appendix 2	For full details see Appendix 2
<b>Concessional Loading Bulk Products Scheme (CLBPS)</b>	No restrictions	16.5 tonnes	23.5 tonnes	Route restricted	For full details see Appendix 2	For full details see Appendix 2

Note: Dual tyres are required on all axle groups except the steer axles.

\*\*\* 9.0 tonne maximum extra mass only permitted on the combination with conditions.

For full details refer to Appendix 2.

## **PROPOSED NEW MASS MANAGEMENT SCHEME (MMS)**

### **Broad Objectives**

The proposed scheme is consistent with Government initiatives to support a prosperous transport industry that delivers the highest standards of safety, fosters competitive markets and services, protects the road infrastructure and operates in an environmentally responsible manner.

Expanding the existing WA Heavy Vehicle Accreditation system to include Mass Management will help operators manage their businesses more efficiently by developing procedures for managing loading and controlling the risk of overloading.

Accredited operators will benefit by operating in an environment of a level playing field with minimal interference from Government. It will provide assurance to the community that road safety is enhanced and the State's road assets are protected.

The new Mass Management Scheme will be a flexible, equitable and easy to operate scheme that is transparent and consistently applied with minimal administrative burden for transport operators and Main Roads. Industry wants a mass management scheme that has a clear set of rules, which are easily understood and consistently applied.

The MMS is an attempt to allow transport operators to demonstrate they are able to run their businesses responsibly with minimum bureaucratic interference in a fair, just and equitable environment.

### **Protecting Roads and Bridges**

Heavy vehicles account for most damage to roads. The amount of damage is related to vehicle weight, load distribution, distance travelled, and the strength and thickness of the pavement. Road wear in particular is exponentially related to increases in mass.

In most cases bridges or other structures are the weakest link on a road route. The mass limitations of these bridges and structures largely determine the load bearing capacity of the entire road or route.

The different levels of concessions offered in the MMS scheme have maximum axle weights set to protect the road and bridge infrastructure and are based on the confidence level and assurances that operators have adequate loading and weighing controls.

## **WA Heavy Vehicle Accreditation**

Transport operators participating in the Mass Management Scheme will be required to comply with the mass management module of the WA Heavy Vehicle Accreditation scheme.

Operators who can demonstrate a high degree of compliance with the MMS will benefit from less on-road enforcement.

The accreditation process with fatigue and maintenance modules, along with the new mass management module, will remain largely the same as is described in the documents on Main Roads' website:

<http://www.mainroads.wa.gov.au/UsingRoads/HeavyVehicles/Accreditation/Pages/Accreditation.aspx>

### **The system will be based on a network of roads**

Previous concessional loading schemes were route specific. It is proposed to operate the new MMS system on a network of roads. New concessional networks will be developed in consultation with Local Government.

Main Roads has written to all Councils requesting a review of the current list of concessional roads within their jurisdiction with a view to inclusion into a network that will be available to all operators.

### **Lower tiers of this scheme could be by “notice”**

Lower tiers, under the MMS scheme, could be “gazetted” thereby reducing the administrative burden of maintaining a permit system.

It is suggested that a gazetted notice for Level 1 and Level 2 access to the Mass Management Scheme. This would then be similar to the Higher Mass Limits (HML) and Concessional Mass Limits (CML) schemes that are in operation in the Eastern States where access is granted via a Notice and no Permits are required.

This would help alleviate much of the administrative burden for Transport operators as well as Main Roads in Western Australia.

## Proposed Mass Management Scheme (MMS)

Scheme (Maximum Axle Mass)	Comments
VSR Standard  Steer Axle - 6 tonnes Tandem Axle - 16.5 tonne Tri Axle - 20 tonnes	Standard axle mass - 6 t single steer axle, 16.5 t tandem-axle group, 20 t tri-axle group.
Level 1  Steer Axle – 6 tonnes Tandem Axle – 17 tonne Tri Axle 21 tonnes	Aligns with National CML. Consider State-wide access on gazette notice. Mass Management Module required to demonstrate how loading is managed, but not required to operate off a weighbridge. Measurement adjustment applied for on road enforcement. Subject to audit.
Level 2  Steer Axle – 6 tonnes Tandem Axle – 17 tonne Tri Axle - 22.5 tonnes	Aligns with National HML. Based on a network of routes. Mass Management Module required to demonstrate how loading is managed with an approved load measurement device. Measurement adjustment applied for on road enforcement. Subject to audit.
Level 3  Steer Axle – 6 tonnes Tandem Axle – 17 tonne Tri Axle - 23.5 tonnes	As Level 2 above, but operators must be able to demonstrate the ability to consistently determine individual axle group masses by means of an approved weighing device.
Level 4	Under this special category there will be the scope for increased tonnages, which will be arrived at based on a negotiated commercial arrangement to compensate Main Roads and Local Government for increased pavement and bridge wear. Subject to audit.

Levels 1 & 2 may be delivered via Notice in the Government Gazette.

## Specific Requirements of the MMS

Operators will need to provide the following information:

REQUIRED	INFORMATION REQUIRED
✓	Quality Assurance Plan for the Mass Management System
✓	Demonstrate consistent and suitable loading procedures
✓	List of registration and VIN numbers of the vehicles to be used on the operation. Proof of meeting manufacturers rating.
✓	Diagrams of vehicle configurations showing axle groups and spacings, position of turntable, overall combination length as well as the weights of each axle group and the method used to ensure each axle group limit is not exceeded.
✓	In cases of volume controlled bulk liquid operations, a diagram displaying the target volumes of each compartment and safe fill levels
✓	Details of route/network
✓	Documented responsibilities for personnel
✓	Maintain records of loads

## Weighing Controls

The access provided through the current concessional loading schemes is based on split-weight over a certified weighbridge prior to entering the road system. This is to protect the road and bridge assets. Main Roads has advised that any increase in axle mass could impact on the network of roads permitted for access.

Industry and the Ministerial Heavy Vehicle Advisory Panel are keen to explore other weighing mechanisms as there are insufficient weighbridges, difficulties with split-weighting and the required facilities are not ideally located.

There is a wide variety of weighing systems available for use by the transport industry. These include on-board weighing systems such as:

- Load Cell On-Board Truck Weighing Systems
- Air Bag On-Board Truck Weighing Systems
- Hydraulic / Pressure Transducer Weighing Systems For Forklifts and Loaders
- Trailer Weighing Systems

There are axle weighbridges, axle scales and axle weigh pads for stationary and in-motion weighing systems. Additionally, there are a wide variety of weighing systems in the market that are available such as conveyer belts, augers, etc.

Because of the concerns with load distribution by the Loadrite system and the accuracy of truck weighing systems, Main Roads' current position on the MMS is every loaded vehicle

combination granted Level 3 or Level 4 access will need to cross a certified “approved for trade” split-weight weighbridge before entering the public road system.

As the aim is to develop a more flexible approach to mass management the Minister and the Ministerial Heavy Vehicle Advisory Panel are seeking input from industry on the following:

- Their experience with use and accuracy of alternative weighing systems;
- The availability of weighbridges suitable for split weighing axle groups;
- The movement of loads while in transit eg where a load complies with the legal axle group mass at the point of loading, but is over the legal mass when weighed in transit;
- How to deal with a situation where one axle group is over the legal mass, but the combination is at or below the gross legal mass; and
- Any other issues industry considers relevant to creating a more flexible system.

### **A regime of approvals within Main Roads with agreed time frames**

For standard vehicle combinations using pre-approved routes, the submission of an application, the approval process, the payment of fees and the granting of a permit will be a simple, quick and efficient process (as highlighted on page 6 of this paper).

When applications are submitted for non-standard vehicle configurations and for routes, which are not in the networks, Main Roads may need to undertake an evaluation and assessment process. This can take additional time particularly if approval from other Government agencies and external parties is required.

### **Auditor training**

Auditors must be registered with RABQSA as certified Heavy Vehicle auditors. An external independent body is responsible for the certification and monitoring of auditors. Main Roads may recognise membership approved by other accrediting agencies, such as the National Heavy Vehicle Accreditation Scheme.

There would be a requirement for compulsory training for auditors specific to Main Roads' requirements. Main Roads will continue the existing auditing regime of operator records and processes.

There may be a requirement to conduct an external (2<sup>nd</sup> Party) audit of an operator's compliance records and processes at a yet to be determined frequency.

### **Suitable and effective sanctions for non-compliance**

Any applied sanction is in addition to the normal penalties incurred for a breach of the road transport laws.

Random compliance checks will be carried out to gather information on an operator's level of compliance. These checks cover compliance with the terms and conditions of accreditation. Random compliance checks can be carried out in a variety of ways such as:

- On-road intercepts;
- Spot checks to determine satisfactory compliance;
- Triggered or random inspections and/or audits; and
- Any combination of the above.

When determining the sanction to apply to a non-compliance, consideration will be given to the severity of the case and any mitigating circumstances.

Sanctions that can be imposed on an operator include:

- Counselling;
- A written warning notice;
- Issuing a notice to take corrective action within a specified period;
- Increasing the frequency of scheduled compliance audits;
- Issuing a show cause why accreditation should not be suspended;
- Issuing a show cause why accreditation should not be cancelled;
- Suspension or cancellation of accreditation; and
- Infringements or Prosecutions.

## **SUMMARY**

From a regulatory perspective, mass management accreditation provides greater confidence that the mass of accredited vehicles does not exceed the allowable limits. Such confidence allows enforcement resources to be directed towards more problematic operators.

There are indications that the cost of accreditation is offset by a clear financial benefit due to the efficiency gains created through the systems. The impact of legal liability on attitudes towards risk management systems, particularly in larger companies, is also evident. This consideration will strengthen with enhanced chain of responsibility provisions in compliance and enforcement legislation.

All operators are required to keep detailed and accurate records as specified in the mass management module of the accreditation process.

## NEXT STEPS

The Minister and the Heavy Vehicle Advisory Panel are seeking comment from the industry on the proposed Mass Management Scheme particularly in relation to:

- The broad objective to make available a more flexible Mass Management scheme;
- The use of networks and gazettal notices, where possible, in place of specific routes and permits;
- The development of a multi level approach to mass management; and
- The various weighing methods available to industry.

If you wish to respond to this discussion paper, please email your response to:

[hvo@mainroads.wa.gov.au](mailto:hvo@mainroads.wa.gov.au)

or send your comments to:

Mass Management Scheme Feedback  
PO Box 374  
WELSHPOOL WA 6986

The closing date for comment is 19 March 2010.

### Confidentiality

Information provided in response to this discussion paper, including personal information, may be published or disclosed in accordance with the access to information regimes (these are primarily the *Freedom of Information Act* (FOIA), the *Data Protection Act* and Environmental Information Regulations).

If you want the information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals with, amongst other things, obligations of confidence. In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding.

**DEFINITIONS:**

**“Chain of Responsibility”** refers to the Chain of Responsibility concept in applicable model heavy vehicle road laws.

**“CLS”** means the Concessional Loading Scheme that provides for an increase in the axle group loadings allowed under the regulations and subject to the conditions of a permit issued by Main Roads.

**“Concessional Mass Limits (CML)”** is a nationally agreed scheme that permits approved heavy vehicles to operate with additional mass on certain types of axle groups, on a restricted road network and subject to specified conditions.

**“CWMMS”** means the Certified Weighbridge Mass Management Scheme, which allows extra mass above the regulatory axle limits provided the manufacturer’s Gross Vehicle Mass Limit is not exceeded and the vehicle is weighed on a certified “approved for trade” weighbridge prior to using the public road system.

**“FOIA”** means the Freedom of Information Act 1982.

**“GCM”** means the Gross Combination Mass in relation to a motor vehicle, which is the greatest possible sum of the maximum loaded mass of the motor vehicle and of any vehicles that may lawfully be towed by it at any one time-

- (a) as specified by the motor vehicle’s manufacturer-
  - 1. on a plate fixed to the vehicle by the manufacturer; or
  - 2. if the manufacturer has not specified the sum of the maximum loaded mass on a plate fixed to the vehicle – in another place; or
- (b) as specified by the relevant authority if-
  - 1. the manufacturer has not specified the sum of the maximum loaded mass;
  - 2. the manufacture cannot be identified; or
  - 3. the vehicle has been modified to the extent that the manufacturer’s specification is no longer appropriate.

**“Higher Mass Limits (HML)”** is a nationally agreed scheme that permits approved heavy vehicles to operate with additional mass on certain types of axle groups, on a restricted road network and subject to specified conditions.

**“HMMS”** means the Harvest Mass Management Scheme.

**“GVM”** means the Gross Vehicle Mass in relation to a vehicle, which is the maximum loaded mass of the vehicle-

- (a) as specified by the manufacturer; or
- (b) as specified by the relevant authority if-

1. the manufacturer has not specified a maximum loaded mass;
2. the manufacturer cannot be identified; or
3. the vehicle has been modified to the extent that the manufacturer's specification is no longer appropriate.

“**MMS**” means the Main Roads' Mass Management Scheme.

“**Mass Management Module**” means the mass management module offered as part of the Main Roads' accreditation process.

“**Main Roads**” means Main Roads Western Australia.

“**Motor vehicle**” means any propelled vehicle that has registered to participate in the Mass Management Module of the Main Roads' accreditation system.

“**Notice**” means any notice issued by the Commissioner of Main Roads and published in the Government Gazette.

“**Overmass**” in relation to a vehicle, means having a mass that, including the mass of any load, exceeds a relevant mass limit in Part 3 of the Road Traffic (Vehicle Standards) Regulations 2002. (Whether or not the vehicle is over size).

“**Permit**” means a Permit issued under Regulation 25 of the *Road Traffic (Vehicle Standards) Regulations 2002*, inclusive of its supporting documentation.

“**Restricted Access Vehicle (RAV)**” means a vehicle that alone, or together with any load, exceeds one or more of the following limits:

- (a) a mass limit prescribed in Part 3 of the *Road Traffic (Vehicle Standards) Regulations 2002*, or
- (b) one of the following dimension limits:
  - (i) a width of 2.5 m;
  - (ii) a height of 4.3 m;
  - (iii) a length of 12.5 m in the case of a motor vehicle that is not part of a combination or 19 m in the case of a combination; or
  - (iv) any other dimension limit specified in the *Road Traffic (Vehicle Standards) Regulations 2002* or the *Road Traffic (Vehicle Standards) Rules*.

“**Transport Operator**” means the person owning and/or using any motor vehicle that is registered under the Mass Management Module of the Main Roads' accreditation system.

“**Vehicle**” means a motor vehicle, trailer or combination, including:

- (a) the equipment fitted to, or forming part of, the vehicle; and
- (b) in Part 3 of the *Road Traffic (Vehicle Standards) Regulations 2002*, any substances that the vehicle is carrying that are essential for its operation.

“**VSR**” means the *Road Traffic (Vehicle Standards) Regulations 2002*

**“Vehicle Standards”** means the *Road Traffic (Vehicle Standards) Rules 2002*.

**“WA Heavy Vehicle Accreditation Scheme”** means the heavy vehicle accreditation scheme, which is administered by Main Roads.

WA CURRENT CONCESSIONAL LOADING SCHEMES – AVAILABLE TO SUITABLY RATED VEHICLES

Scheme	Product	Tandem axle group mass limit	Tri axle group mass limit	Routes of operation permitted	Vehicle configuration restrictions	Entry requirements
<p><b>Certified weighbridge mass management</b></p> <p>Introduced in 2003 to prevent overloading</p>	No restrictions	17.0 tonnes	21.5 tonnes	<p>State wide operation (excluding bridges with posted weights) can be accessed by vehicles with a statutory GCM limit of 42.5 tonnes or less.</p> <p>All other vehicles can access all routes prescribed in the relevant RAV Class 2/3 network of roads relevant to the vehicle combination being used.</p>	<p>Available to Single Steer Prime movers with semi trailers as well as any combination that has a RAV Class 2-3 Period Permit (excluding pig trailers).</p> <p>For vehicle combinations with 4 or more axle groups (excluding B Doubles) the trailers and their loads must not exceed 3.5 metres in height if there are one or more pairs of adjacent axle groups with road friendly suspensions.</p> <p>All axle groups, except the steer axles, must be fitted with dual wheels.</p>	<p>Vehicles must be weighed on a Certified Weighbridge, operated by a supplier member of the scheme, prior to using the public road system.</p> <p>The GVM of the Prime Mover must be 23 tonnes or over.</p> <p>GVM, GCM and ATM ratings are not to be breached due to increased axle group limits provided by the scheme.</p>
<p><b>Import and export container scheme.</b></p> <p>Introduced in 1997 to avoid volumetrically packed shipping containers being stranded at the Port</p>	ISO Shipping containers only	18.0 tonnes	27.0 tonnes	<p>Routes are very restricted (as specified on the Permit) due to the effect of increased weight on roads, bridges and the ability to handle steep grades.</p> <p>Only granted for delivery of Containers to/from a Shipping facility to/from the final destination (Carting from Depot to Depot for internal transfer is not permitted).</p>	<p>The GVM of the Prime Mover must be 24 tonnes or over.</p> <p>GVM, GCM and ATM ratings are not to be breached due to increased axle group limits provided by the scheme.</p> <p>All axle groups, except the steer axles, must be fitted with dual wheels.</p>	<p>Only one heavy container is to be carried at a time. A maximum of an additional 8.5 tonnes is permitted to be loaded over the entirety of the combination.</p> <p>Local Government approval required for use of local roads not on Network.</p>
<p><b>Livestock concessional loading scheme</b></p> <p>Introduced in 1996 to ensure that loading densities/ practices did not contravene animal welfare guidelines</p>	Livestock of all types permitted	18.5 tonnes	23.0 tonnes	<p>Minimal route restrictions.</p> <p>All permitted roads are as outlined in Permit Gen.56 1/2/3.</p>	<p>Semi combinations, B doubles &amp; double road trains.</p> <p>Available to Single steer and Twin Steer Prime movers with semi trailers that have state-wide access.</p> <p>Also available to Class 2 Category 2, 3 &amp; 5 vehicles (excluding pig trailers).</p> <p>Maximum dimensions of trailers are 12.5 metres long, 2.5 metres wide and 4.6 metres high. B-Double trailers not to exceed 18.8m in length (unless granted Ministerial exemption).</p> <p>All axle groups, except the steer axles, must be fitted with dual wheels.</p>	<p>Application and permit fee only to obtain concession. Trailers must be a 2 deck cattle crate, 4 deck sheep crate or 3 deck livestock crate designed for pigs, goats and other medium sized animals.</p> <p>The GVM of the Prime Mover must be 24.5 tonnes or over.</p> <p>GVM, GCM and ATM ratings are not to be breached due to increased axle group limits provided by the scheme.</p>
<p><b>Concessional Loading Bulk Products Scheme (CLBPS)</b></p> <p>Introduced in 1995 for increased transport productivity for ongoing high volume transport operations</p>	No restrictions	16.5 tonnes	23.5 tonnes	<p>Limited network of roads available. Each permit has a specified number of roads that can be used by the operator.</p> <p>Routes are restricted due to the effect of increased weight on roads, bridges and the ability to handle steep grades. Routes permits are product specific.</p>	<p>GVM, GCM and ATM ratings are not to be breached due to increased axle group limits provided by the scheme.</p> <p>Local Government approval is required for the use of local roads under this scheme.</p> <p>Available to Single steer Prime movers with semi trailers as well as any combination that has a RAV Class 2 -3 Period Permit (excluding pig trailers).</p>	<p>Detailed application required for each product and each vehicle combination detailing the roads to be accessed under this application. In addition, full details of the operations have to be approved by Main Roads such as tonnages carried, duration of operations, vehicle configurations etc.</p> <p>A load plan must be submitted showing how weight on each axle group will be controlled.</p> <p>Only available to operators whose Quality Assurance Plan is accepted by Main Roads. No external audit requirements.</p>