



NSW Grain Harvest Management Scheme 2013/14

Discussion Paper

June 2013

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1. Introduction

The grain industry plays a vital role in the NSW economy. In 2010/11, the NSW grain crop was valued at nearly \$3.8 billion, accounting for around 40 per cent of the total value of the state's agricultural production and 1.25 per cent of gross state product.

Grain production is highly variable and is very much dependent on rainfall and climatic conditions. On average, however, production volumes have increased over time as farming areas have increased and improved farming and water management techniques have been introduced.

The NSW grain belt stretches from the border with Queensland in the north to the western slopes to the east, the plains to the west and the Riverina in the south-west to the Victorian border.

The winter crop (wheat, barley, canola, lupins, oats, chickpeas, beans, lentils and triticale) harvest season on the east coast of Australia generally starts in Queensland, following through NSW and ending in Victoria.

Rice is a summer cereal crop grown mainly in the Riverina Region in south-western NSW, particularly the Murray and Murrumbidgee irrigation areas but also around Coleambally and Deniliquin areas. The Riverina produces the vast majority of rice grown in Australia.

With new technologies in harvesting machinery, farmers are now able to harvest the crop over shorter and more intense periods, this being in NSW from October to early January for winter crops and from March to May for rice.

Productivity and competitiveness are vital goals for all sectors of the market. The NSW Government recognises the needs of industry to improve productivity and efficiency in the transport task of moving crop from the farm to point of first receipt and to support the competitiveness of NSW grain in the market place.

Transport for New South Wales is seeking comments on its proposal for a NSW Grain Harvest Management Scheme for the 2013/14 harvest season.

This discussion paper provides a case for a Grain Harvest Management Scheme for NSW that would build the foundation for a long term plan to support productivity gains in the grain industry.

2. Summary

Productivity and competitiveness are vital to meet the challenges the grain industry is currently facing and into the future on the national and international market.

Advances in technology and farming techniques have enabled farmers to significantly improve their planting and harvesting capacity. This has created a need to promptly transport harvested grain from farms into storage facilities.

To capitalise on this opportunity, the grain industry has approached the NSW Government seeking a higher productivity solution to the transportation task.

A temporary mass exemption was made available for the 2012/13 winter harvest season while options were being considered for a long-term high productivity plan.

Transport for NSW (TfNSW) and Roads and Maritime Services (RMS) have since held a number of discussions with stakeholder groups. These have included detailed consultation with industry on the success of the 2012/13 mass exemption, the Queensland Grain Harvest Management Scheme and its adaptability for NSW and the challenges of the NSW road network system.

From these discussions, a structure of the 2013/14 Scheme has emerged with the following elements:

- Flexibility of up to 5% over General Mass Limits (GML) for both gross vehicle mass and axle group masses for eligible grain vehicles moving from farms to point of first receipt across regional NSW. Noting the axle mass on the tandem axle group would be capped at HML.
- To cater for the potential of mass shifting during transit an additional 0.5t on each tri-axle would be allowed but the total mass would be limited to that of the 5% flexibility over GML gross vehicle mass.
- All participating vehicles would be required to be accredited under the Mass Management module of the National Heavy Vehicle Accreditation Scheme (NHVAS).
- All participating transport operators would be required to register in the Scheme with the Scheme Administrator.
- All participating grain receivers would be required to formally report to RMS through a Memorandum of Understanding.
- Participating transport operators are afforded three non-compliance occurrences during one season after which they would be removed from the Scheme by the Administrator for the remainder of the season.
- Mass in excess of the Scheme allowance would be rejected by the receiver. Transport operator/grower may skim the excess mass in situ at receiver sites to avoid dumping in nearby areas. Details of the overloads reported to the Administrator and recorded as a non-compliance strike.
- Vehicles with mass overloads exceeding 10% above GML would be immediately removed from the Scheme and face breach action. The three strikes system would no longer apply.
- The Scheme would be implemented through a notice, limited to the period between 1 October 2013 and 31 May 2014.
- The Scheme would be open to farmers, transport operators and receivers of the following grain varieties:
 - Wheat
 - Barley
 - Canola
 - Rice
 - Pulses
 - Oats

3. Background

Grain is grown across the state – from the north to the western slopes and plains, the Riverina and the southwest. Figure 1 shows the key areas of production and key points of consumption.

Wheat is the dominant crop in NSW (and across the country), however significant quantities of barley, pulses, oilseeds, rice and other cereal crops are also grown. Table 1 shows production volumes of key grain crops over the period 2004/05 to 2010/11.

Production	Wheat	Barley	Other Coarse Grains	Oilseeds	Pulses
2004/05	7,537	1,761	1,802	1,059	252
2005/06	8,049	2,336	2,105	1,005	285
2006/07	2,568	753	710	400	240
2007/08	2,477	814	1,623	275	268
2008/09	6,963	1,449	1,447	560	390
2009/10	5,350	1,236	1,187	718	508
2010/11	10,700	2,249	1,802	1,703	555

Table 1: NSW Grain production (MT), 2004/05 to 2010/11 (AES).

There is a growing trend in the grain industry towards more condense and intense harvest periods. New farming methods, technology and engineering advances over the past decade have enabled significant operational capacity improvements on farm. This change in harvest is placing additional pressure on supply chain efficiency, from the farm to receival sites on the road and rail networks.

Grain is predominantly moved by trains from silos to major consolidation hubs or to the ports for export. However, transport of grain from farm to point of first receival is, in most cases, by roads.

All NSW roads are open to General Mass Limits (GML) vehicles which are no longer than 19 metres, higher than 4.3 metres and no wider than 2.5 metres. Concessional Mass Limits (CML) set at up to 5% above existing GML axle mass limits and a 1 to 2 tonne increase in GML gross vehicle mass are available to eligible vehicles that meet the requirements of the National Heavy Vehicle Accreditation Scheme. High Mass Limits (HML) is the highest level of mass able to be carried on NSW roads by road freight vehicles. It is available to eligible vehicles on certain roads and access requires enrolling in the Intelligent Access Program (IAP).

HML access on NSW roads is constrained in places by vulnerable structures that were not built to carry modern and heavier vehicles. NSW has some unique challenges notably we have the largest and oldest stock of bridges (predominantly timber bridges) in the Commonwealth. The vast majority are on Council roads.

The grain industry has approached Transport for NSW to gain assistance in the transportation of grains on the road network. They are seeking a mass concession for trucks carrying grain during the harvesting season.

Queensland currently operates an all year round Grain Harvest Management Scheme (GHMS) that allows scheme vehicles a mass concession of 7.5% on vehicle gross mass and 10% on axle group mass, and access on the road network appropriate for the given vehicle configuration.

RMS has considered this scheme and its applicability to NSW roads and found that there are a number of issues that would prohibit the outright adoption of the QLD GHMS in NSW, either on a temporary or long term basis.

As an interim measure for the 2012/13 winter harvest season, Transport for NSW and Roads and Maritime Services implemented a temporary higher productivity transportation plan that allowed trucks to carry masses up to CML from farms to grain receival locations. It was implemented through a Class 3 Notice from 9 November 2012 to 31 January 2013. While this provided for quicker movement of grain to storage, it did not reward operators who adopt the good management practices of NHVAS.

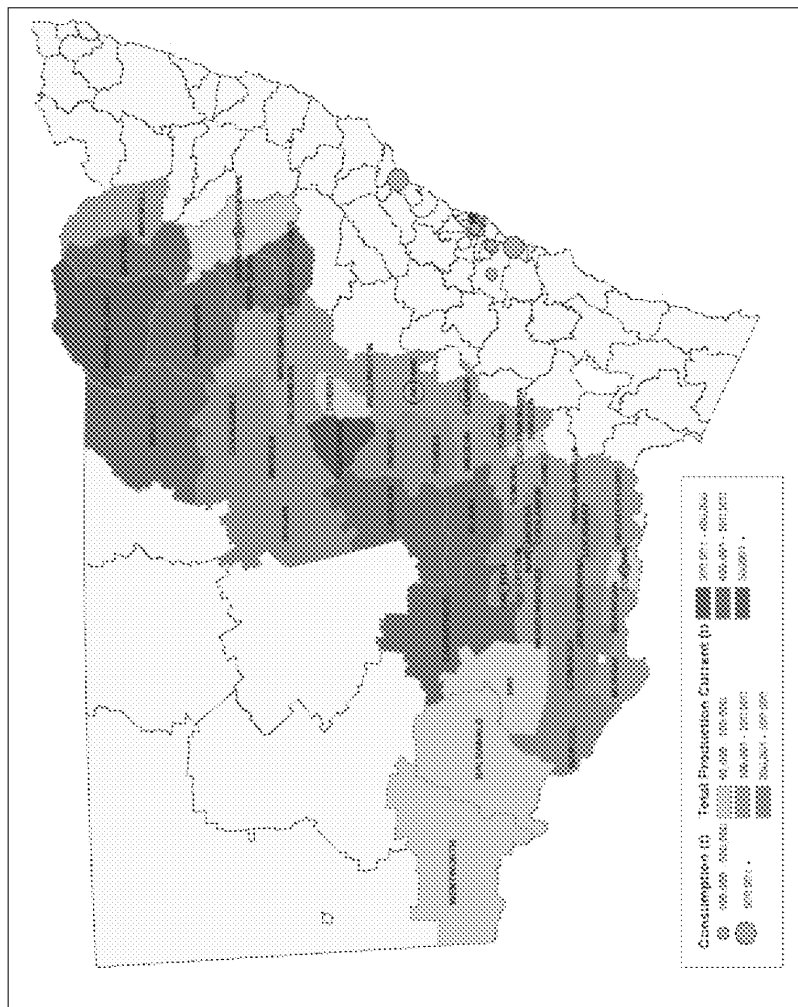


Figure 1. NSW Grain Production and Consumption, including but not limited to wheat, barley, canola, pulses, oats and rice (Source: NSW Grain Freight Review)

4. Constraints and challenges

The principal challenges faced in the development of a Grain Harvest Management Scheme for NSW are:

- Configuration of the road network
- Impact on road infrastructure
- Regulatory compliance and enforcement issues

Configuration of the road network

Constraints on the use of the road network can result from the different levels of government control and mass restricted pinch points that limits accessibility for high productivity vehicles to grain receipt points.

NSW roads are grouped into a three tier administrative classification system of State, Regional and Local Roads. State Roads are maintained by RMS, while Regional and Local Roads are the responsibility of Councils to fund, determine priorities and carry out works.

Regional Roads are eligible for annual assistance grants from the State Government in recognition of their relative importance while the main funding sources for maintenance of Local Roads are council rates and Commonwealth Government grants.

Council roads represent a critical section of a freight journey within the grain supply chain. Most grain freight journeys from the farm to the grain receiver starts and ends on council roads but the majority of travel is on State roads.

Different to other jurisdictions, NSW have a large stockpile of vulnerable structures, many of which are aged timber bridges that were designed to the standards that were current when constructed and do not support modern road vehicle configurations.

Impact on road infrastructure

While the use of high productivity vehicles helps to keep the costs of road freight transport to a minimum for consumers, these vehicles present challenges for road management. Some high productivity vehicles impose significant demands on road infrastructure including pavements, structures and road shoulders.

A concern for owners of road infrastructure is illegal overloading. Excessive overloading exerts extra static and dynamic loading that can be responsible for accelerated breakdown of the pavement and bridge components or, in some extreme cases, bridge failure.

In NSW, there are regulatory safeguards in place to protect road assets. To operate on the road network at HML vehicles are required:

- To be fitted with road friendly suspension and comply with in-service maintenance and performance requirements.
- To be enrolled in a route-compliance monitoring regime using the Intelligent Access Program (IAP).
- To be enrolled in the 'Mass Management' module of the National Heavy Vehicle Accreditation Scheme (NHVAS).

Regulatory compliance and enforcement

Overloading increases the risks to road user safety and damage to bridges and roads. RMS employs its regulatory powers under Road Transport legislation to ensure the practices of all responsible parties in the supply chain lead to improved compliance, asset protection and safer roads.

In addition to on-road enforcement, RMS has been working with the wheat industry over the last few years to improve its load compliance rate. The industry has been very responsive and as a result, there has been a significant decrease in the issue of overloading.

The tables below show summaries of grain deliveries to GrainCorp sites over the 2011/12 and 2012/13 harvest periods. As can be seen, at least 65% of deliveries were within the legal limit, over 30% recorded minor overloads (4.99%) and less than 1% of deliveries were in the substantial or severe category.

For the 2012/13 wheat harvest period a CML concession was in place. Receivers weight records against GML (not CML where the vehicle already has the CML concession). Hence, loads were allowed to go into the 0-5% band above GML. These graphs show the industry can very reliably load to a mass limit.

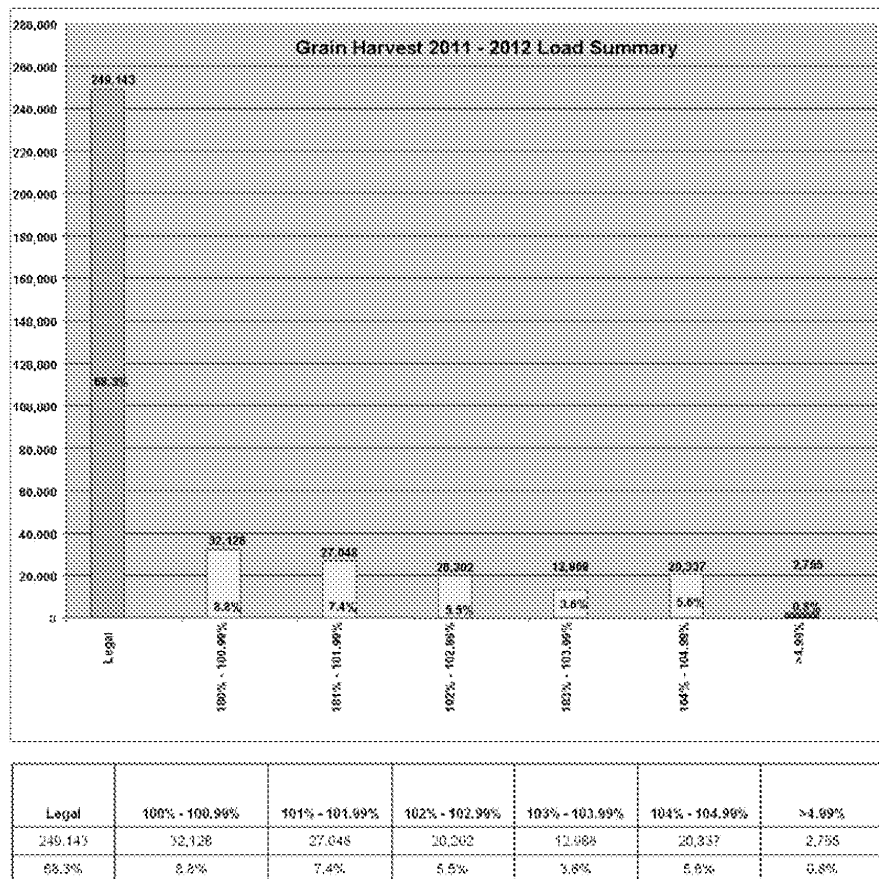


Table 2. 2011/12 Load Summary

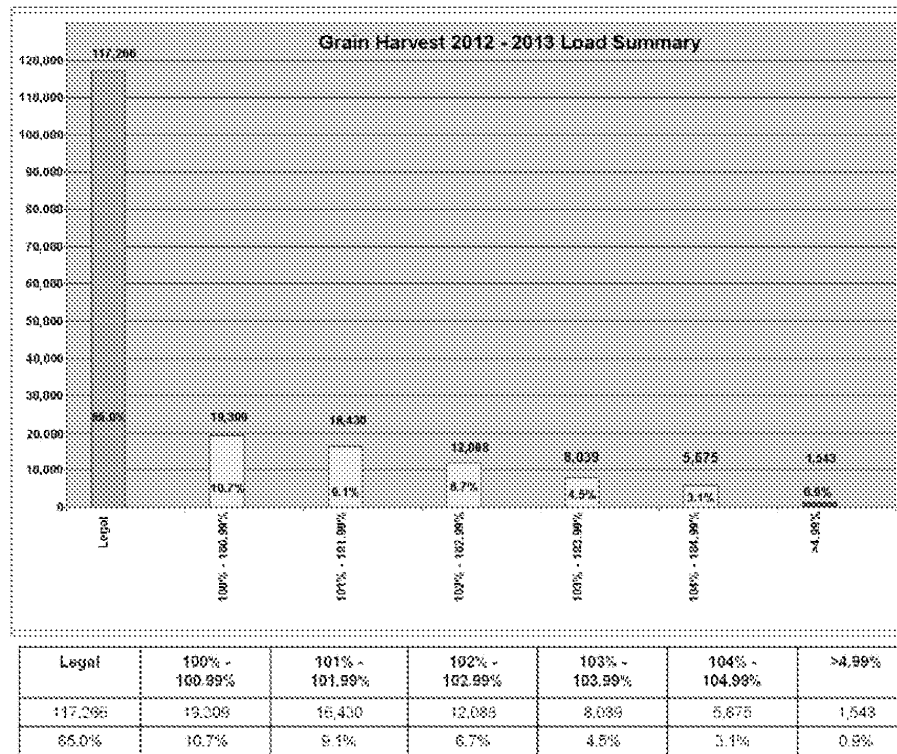


Table 3. 2012/13 Load Summary

5. NSW Grain Harvest Management Scheme (NSW GHMS) 2013/14

5.1 Scheme Objectives

The Scheme is designed to achieve the following primary objectives:

- Facilitate the movement of grain off farms to grain receivers during the peak harvest season
- Improve the productivity and efficiency in the grain transport task
- Protect road and bridge infrastructure
- Promote the safe movement of grain across the state
- Recognise industry's higher productivity needs
- Support the competitiveness of the NSW grain industry on the national and international markets

5.2 Scheme Structure

5.2.1 *Scheme mass limits*

Various flexibility options have been considered. They include:

- Concessional Mass Limits – This was trialed in 2012/13. While it did provide additional mass for trucks carrying grain to receival points, it did not offer any benefits to those transport operators who were already accredited under the NHVAS.
- Higher Mass Limits – This option is currently not feasible due to the vast number of structures on regional and local roads that would be put at substantial risk if carrying HML masses.
- Up to 5% above GML for both gross vehicle mass and axle group masses with additional 0.5t floating mass on each tri-axle group. The total mass would be limited to 5% above GML gross vehicle mass and the axle load on the tandem axle group would be capped at HML – This option would put masses between that of CML and HML. It would be conditional for participating transport operators to have NHVAS accreditation. For those operators that are already accredited, this would provide them with additional mass above CML. In discussions with industry and Local Government representatives, it would seem that this option has the general support of these groups.
- Up to 5% GML for those not NHVAS accredited and 5% above CML for those that are accredited - 5% above CML would put masses very close to HML and in some cases, over HML. As the HML option, this currently is not feasible with the large number of vulnerable structures on the road network. The two-tier flexibility would also add a level of complexity to compliance monitoring that would make it more difficult and hence, could undermine its effectiveness.
- Up to 7.5% above GML – this would bring masses to HML or above. This option was not further considered for the same reason as the HML option above.

5.2.2 Scheme duration

The winter harvesting season in NSW generally starts from October in the northern parts and progresses south to the Victoria border, completing by late January. The harvesting season for rice is generally from March to May.

Hence, it is proposed that the Scheme operates from 1 October 2013 to 31 May 2014.

5.2.3 Geographic area and road network

The Scheme would apply for travel within regional areas, from farms to first practicable grain receival locations. This flexibility would not be available to grain moved on road to Port or major urban areas.

Local Government has a key role to play in approving access on key local roads. In NSW, there are over 18,000km of State roads, 18,000km of Regional roads and almost 145,000km of council-managed roadways. It would be ideal to identify a grain network involving routes to receival sites. However, with the winter harvest season rapidly approaching this would be difficult to achieve within the short timeframe. For the purpose of 2013/14 Scheme, it is proposed that access arrangements would apply for travel on all roads, except where prohibited by a load limit specified for a road, bridge or causeway by a sign or notice.

Restricted Access Vehicles (RAV) operating under the Scheme must comply with applicable RAV routes. All necessary regulatory, enforcement and communication/engagement plans will be in place to ensure compliance with the rules and conditions of the Scheme. This would include:

- Communication and engagement plans to clearly communicate the Scheme's compliance conditions and penalties for breaches
- During and post harvest audits
- Controls to deal with overloads
- Encouragement to transport operators to use on-board mass system to prevent overloading
- Targeted roadside enforcement by enforcement officers across the GHMS area

Compliance data over the last few years have shown that work done by RMS with growers and transport operators have seen significant improvements in the mass compliance rate.

The Scheme is expected to include a registration fee which may incorporate a contribution to councils to assist with road maintenance. The policy would need to be explored in the development of the longer term scheme. Issues that would need to be addressed include what would be the size of such a contribution and how it would be shared out between councils.

5.2.4 Vehicle safety requirements, size and combination

To ensure fairness and equity is afforded to all participants, the NSW GHMS proposes that all participating vehicles be required to be accredited under the mass management module of the NHVAS to be eligible.

Transport operators and growers are also encouraged to use on-board mass systems to manage the vehicle mass as participating receivers will not accept non-compliant loads and records of all loads received will be forwarded to the Administrator. Maintenance requirements and operation of on-board mass systems are the responsibility of transport operators and growers.

Data provided by GrainCorp indicates that thirteen vehicle configuration types carry out 95% of the grain movement task. Of this, nearly 50% is by semi-trailers, 17% by type 1 Road Trains and nearly 9% by 19m B-doubles.

Based on this information, the following combination types would be eligible to participate in the Scheme:

- Semi Trailer
- 19m B-double
- 23m B-double
- 25/26m B-double
- Road trains

It should be noted that truck and dog combinations currently running under Performance Based Standards (PBS) would not benefit from this scheme as under PBS they are permitted to carry masses in excess of the proposed GHMS.

It should also be noted that rigid trucks would not be eligible to participate in the Scheme. Due to their configuration, rigid trucks do not have the capacity to carry masses above CML gross mass.

The maximum NSW GHMS total combination mass limits are:

• 19m Semi-Trailer	44.5 tonnes
• 19m B-double	52.5 tonnes
• 23m B-double	62.0 tonnes
• 25/26m B-double	65.5 tonnes
• Type 1 road trains.	
▪ With 11 axles	83.0 tonnes
▪ With 12 axles	86.5 tonnes

For Grain Harvest Management Scheme Table of Mass Limits, refer to Appendix A.

5.2.5 Interstate grain harvest management schemes

Vehicles enrolled in grain harvest management schemes of other States would be required to register in the NSW Scheme. They must comply with NSW Scheme vehicles standards, mass limits and operating conditions including NHVAS accreditation.

5.3 Scheme Administration

5.3.1 Transport operators and growers

Under this proposed scheme, all transport operators and growers who choose to participate in the NSW GHMS would be required to register in the Scheme with the Scheme Administrator.

5.3.2 Grain receivers

Grain receivers who choose to participate in the NSW GHMS would be required to enter into a Memorandum of Understanding (MOU) with RMS.

As a condition of this MOU, participating grain receivers must maintain receipt records in a standard auditable format and make them available to the Scheme Administrator on a daily basis.

5.3.3 Scheme Administrator

The responsibilities of the Administrator would be to administer and co-ordinate the following aspects of the Scheme's operation:

- Accept and process applications from transport operators and growers wanting to participate in the GHMS
- Collate receipt data, compile report and document non-compliance vehicles for forwarding to RMS
- Issue formal warnings and removal of non-compliant participants
- Administration duties associated with the above tasks

The NSW Government does not have the resources to take up the role of Scheme Administrator. Hence, the role will need to be filled by an industry body. AgForce manages the Queensland Grain Harvest Management Scheme with membership fee of \$99 per truck. During discussions with industry, NSW Farmers have indicated that they are prepared to take on this responsibility. This issue needs to be resolved.

5.3.4 NSW Roads and Maritime Services

The role of RMS would be to:

- Oversee legislative requirements and review of the GHMS
- On-road enforcement of Scheme rules
- Strategic review of receipt data and target enforcement resources to areas where non-compliance may be an issue
- Carry out during and post harvest audits

Refer to Appendix B for the Scheme Flow Chart.

5.4 Compliance Action

While compliance rates have notably improved over the last few years it is recognised by stakeholders that enforcement and compliance actions for those in breach of the rules and conditions of the Scheme play a vital role in maintaining it at a high level.

Under the Chain of Responsibility legislation, the onus is on growers, transport operators and grain receivers to ensure that trucks are legally loaded. GHMS participating receivers will not accept deliveries in excess of the Scheme mass limits. In the event of a grain load being presented to a grain receiver which exceeds the Scheme mass limits, it will be the responsibility of the transport operator or owner to take corrective action so that the load complies with the Scheme rules.

During the various discussions, industry raised the issue of dumping of grain that is in excess of legal mass at nearby rest areas or on the roadside. This illegal activity creates an environmental issue and puts overloaded vehicles back on to the road network. A solution for consideration is upon rejection by the receiver, the transport operator or grower may skim the excess mass in situ at the receival site and re-present. Details of the overload would be transmitted to the Administrator for immediate issue of formal warning and strike recording.

Participating transport operators and growers are afforded three non-compliance occurrences after which the Scheme Administrator would suspend the registered vehicle from the Scheme for the remainder of the season.

Vehicles with mass overloads exceeding 10% above GML would be immediately removed from the Scheme and face breach action. The three strikes system would no longer apply.

During the suspension period, the transport operator would be able to consign loads to the general mass limits for all subsequent harvest deliveries within that season to any grain receiver.

Non-compliances may include a combination of:

- Breaches of scheme vehicle standards and operating conditions as set above
- Breaches of axle and total combination mass limits
- Non-compliance with route restrictions and bridge load limit signs

Any non-compliance detected by on-road inspectors that is in breach of the Scheme conditions and rules (as set above) would be recorded as such under the Scheme and count towards the three non-compliance occurrences for scheme suspension.

6 Review and audit

RMS will monitor the NSW GHMS weight and delivery data collected during the harvest season to determine the Scheme's effectiveness in reducing vehicle overloading.

Formal review of scheme conditions through workshops and recommendations to come out of that process will be drawn on to refine the scheme for 2014/15.

7 Next Steps

Any approach to implementing a Grain Harvest Management Scheme will need the cooperation and consensus at both the State and Local Government levels. However, stakeholders in the grain sector have an important role in the subject matter under discussion.

The next steps in the process are:

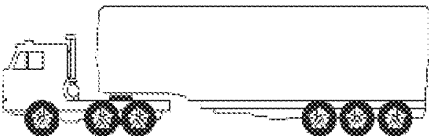
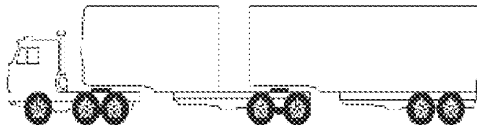
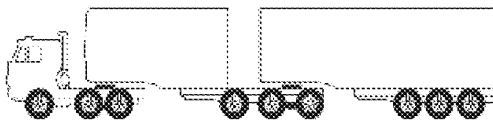
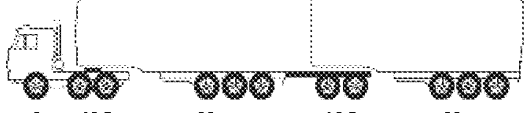
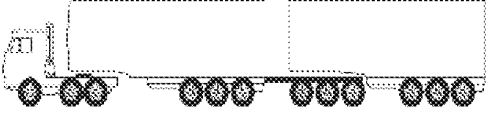
June 2013	Build consensus with stakeholders
July 2013	Finalise Scheme
August 2013	Minister's Approval
October 2013	13/14 GHMS commences: monitor, collect data, and respond to feedback
June 2014	13/14 Scheme concludes

8 Appendices

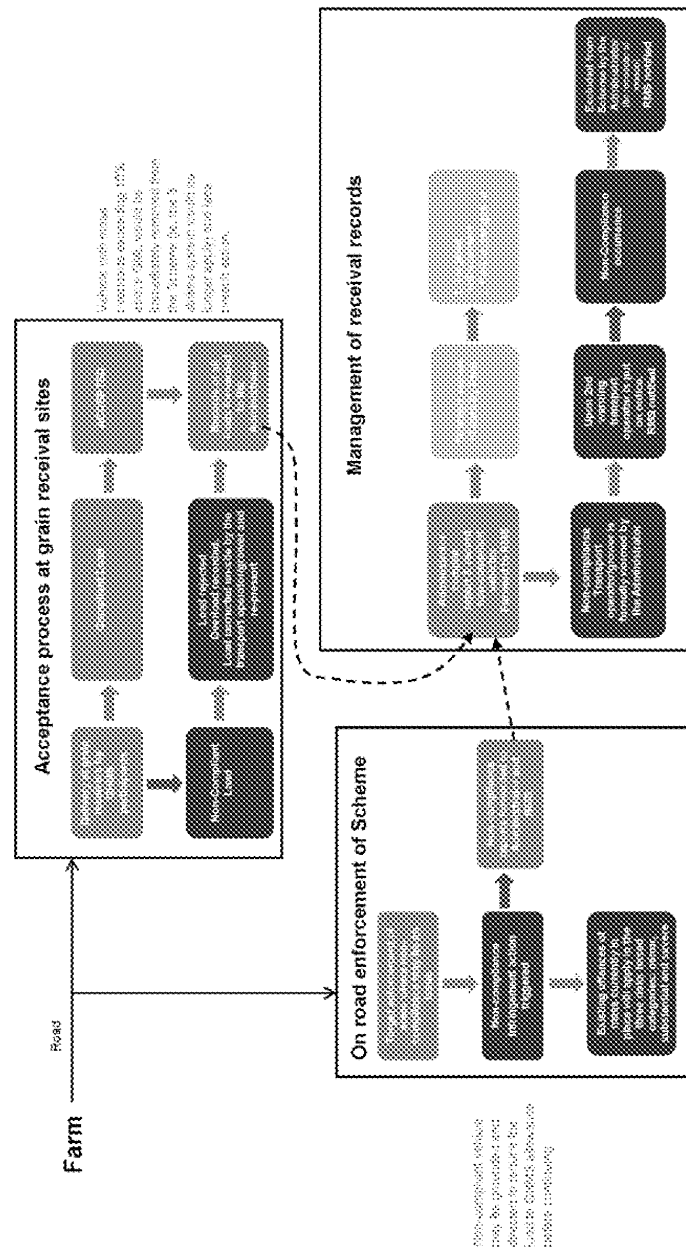
Appendix A –Table of Mass Limits

Appendix B – Scheme Flow Chart

Appendix A - Table of Mass Limits

Vehicle Configuration	GML (t)	CML (t)	GHMS (t)	RML (t)
18 metre Semi Trailer – 6 axle  GML GHMS	6 6	16.5 17.0	20 21.5	42.5 43.5 44.5 45.5
B-Double (up to 19m) – 7 axle  GML GHMS	6 6	16.5 17.0	16.5 17.0	16.5 17.0
25/36 metre B-double – 9 axle  GML GHMS	6 6	16.5 17.0	20 21.5	20 21.5
Type 1 Road Train – 11 axle  GML GHMS	6 6	16.5 17.0	20 21.5	16.5 17.0
Type 1 Road Train – 12 axle  GML GHMS	6 6	16.5 17.0	20 21.5	20 21.5

Appendix B – Scheme Flow Chart



13/00952

Transport
for NSW

11 SEP 2013

Ms. Jennifer Bennett
Executive Officer
Central NSW Councils (CENTROC)
PMB 17, Bathurst NSW 2795

Dear Jennifer,

NSW Grain Harvest Management Scheme 2013/14 – Update

Transport for NSW appreciates the commitment shown by CENTROC in assisting with the trial of this important rural productivity initiative.

Following ongoing consultation with industry and in recognition of the accreditation of vehicles in the National NHVAS Mass Management Accreditation Scheme (which importantly requires increased suspension maintenance), it is proposed that an additional 200 kilograms on the tri-axle group be permitted on the following vehicle combination for operators accredited in NHVAS:

- Short combination (semi-trailer) – 6 axles

Please Note: this weight limit will be tightly regulated by the provision of the three strikes removal system.

It would be appreciated if CENTROC could provide a copy of this letter to member councils requesting them to confirm inclusion of the additional allowance for these accredited operators in the NSW Grain Harvest Management Scheme 2013/14 on 8202 2334 or grain@transport.nsw.gov.au, by Friday 20 September.

We look forward to your support as we implement this important piece of work in time for the 2013/14 harvest.

Kind regards,

A handwritten signature in black ink, appearing to read 'Rachel Johnson'.

Rachel Johnson
Deputy Director General – Freight and Regional Development

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