

## **Draft Moving Freight: Queensland freight strategy**

### **Australian Sugar Industry Alliance submission**

20 August 2013

The Australian Sugar Industry Alliance (ASA) was formed in 2007 with a goal to “Promote and advance the development of a commercially vibrant, sustainable and self-reliant raw sugar and sugarcane derived products industry”. Founding members, CANEGROWERS and the Australian Sugar Milling Council, formed ASA to enhance whole of supply chain collaboration and promote a single industry approach to matters of common interest.

In the development of a final version of the Queensland Freight Strategy, ASA asks the Queensland Government to:

1. Recognise the large private investment in sugarcane rail networks, and the associated public benefit
2. Develop strategies to economically transport agricultural products from newly identified areas of agricultural potential to ports
3. Clarify the role of local, state and federal government in freight policy and future infrastructure investment
4. Engage with the sugar industry to identify ways to access rail freight for transport of sugar to ports for export
5. Reform the regulation of OSOM movements, by reversing the onus of regulation from the proponent to the Queensland Government
6. Discuss potential public/private investment opportunities in expanding sugarcane railways
7. Combine Priority 5 and Priority 6, as they are complementary
8. establish an Agricultural Industries Freight Council (AIFC), to work parallel with the Road Freight Industry Council (RFIC) and the Queensland Transport Logistics Council (QTLC).

## **Background**

The Queensland Government’s Moving Freight Strategy is an area of great common interest within the sugar industry. Sugarcane growers, mills and marketers rely on intricate cooperation of freight of cane and sugar across the industry supply chain to meet just-in-time delivery systems. Harvesters cut sugarcane, which is transported by truck or tractor to

rail sidings. Sugarcane is freighted from rail sidings to the nearest sugarcane mill for processing, predominantly on a privately owned rail network, and the raw sugar is transported by road or rail to a port for storage and eventual export.

This freight network is unique to the sugar industry. Dedicated, privately owned cane railway networks provide the main method of transporting sugarcane to sugar mills in 19 of Queensland's 21 sugar mills. Highly efficient, just-in-time road transport systems supply the remaining two mills.

Figures 1 to 4 below show the sugar freight supply chain from paddock to export.



*Figure 1 Harvester and haul-out unit operating in a paddock*



*Figure 2 Haul-out unit loading a cane bin*



*Figure 3 Cane train transporting cane to mill on private rail network*



*Figure 4 Bulk export terminal used to load sugar onto ships for export*

## ***Freight in the Queensland sugar industry***

### **Cane railways**

The Australian sugar industry has invested heavily in freight infrastructure throughout its value chain to ensure efficient and timely delivery of cane to a mill and sugar to ports. The draft of the Queensland Freight Strategy fails to recognise the sugar industry's self-sufficiency regarding freight infrastructure – or the value this private investment provides regional Queensland.

The cane railway networks are dedicated, mill-owned transport systems that make a significant indirect contribution to state infrastructure by transporting up to 30 million tonnes of cane in a year over a five to six month period through rail corridors other than roads. This private investment by sugarcane mills improves road safety, community amenity and effectively avoids millions of dollars in road maintenance each year. ASA recommends that the final version of the Queensland Freight Strategy recognises this important investment and provides for some future incentives for the industry to maintain and enhance this unique approach.

Sugar mills that have cane railways are located in sugarcane producing areas from Childers in Southern Queensland to Mossman in Far North Queensland. The purpose of the railway systems is to transport freshly harvested cane to the sugar mill for processing as soon as possible, generally within 6 -14 hours from harvest and definitely within 24 hours. In most cases, sugarcane mills and their rail networks operate 24 hours a day, 7 days a week during the crushing season – from June to December.

The investment by the sugar industry in Queensland in cane railway networks is significant. There are in excess of 4,000 kilometres of track, of which about 3,000 kilometres is main line. There are approximately 250 diesel hydraulic locomotives in use and about 52,000 cane "bins", both four-wheel and bogie, are used to transport the harvested cane during the crushing season. These vary in capacity from 4 tonnes to 14 tonnes. Locomotives of up to 520 kilowatts of power are in use.

No other agricultural industry makes a similar contribution in reducing road traffic through use of private transport infrastructure, such as cane railways. The cane railway network has an estimated replacement value of between \$1.5 billion and \$2 billion. The tonnage of cane transported on the cane railway network is equivalent to keeping 15,000 truck movements per day off the coastal road network during the crushing season.

The furthest run from a siding to a mill is 119 km and the average distance hauled per mill area ranges from 13kms up to 35 kms. Trains can run at 40 km/h and can be up to 2000 tonnes in weight and one kilometre in length.

The cost of expanding this rail network is currently prohibitive for the sugar industry. There is substantial variation in cost of expanding the rail network (depending on terrain and other circumstances). However, it is estimated that the current cost to construct an additional kilometre of operating rail track is between \$400,000 and \$600,000. This does not include any bridges, road crossings or necessary adjustments to other infrastructure.

## **OSOM harvesting machinery**

The draft of the Queensland Freight Strategy identifies the need to improve the efficiency of over-size, over-mass (OSOM) movements across Queensland. Efficient and safe movement of sugarcane across the supply chain (from paddock to mill) requires unrestricted movement of OSOM harvesters and haul-out trucks and tractors on public roads between paddocks to harvest sugarcane.

The combination of weather variability and the need for just-in-time delivery of sugarcane for processing can impact on the efficiency of the industry's annual harvest. Improving the productivity of harvesting requires improving the agility of OSOM harvesting movements beyond the capacity of the current OSOM permitting system. The current approach to OSOM permits is restrictive in nature, bureaucratic and doesn't have a clear reporting, complaints or common use structure.

## **Export**

Freight is also a key cost and competitive component for international export of Queensland's sugar. Sugar millers are responsible for the transport of the final product (raw sugar) to the various bulk sugar terminals situated at major Queensland ports. In 2012, millers transported approximately 1.3 million tonnes of raw sugar via Queensland Rail, 2.2 million tonnes by road transport and 0.5 million tonnes by mill-owned railway system from mills to bulk sugar terminals. Just over half of the annual production of raw sugar can be

stored at these terminals enabling raw sugar to be sold when the market provides the highest returns to the sugar industry. Efficient and effective running of the ports is integral to the effectiveness of the marketing system.

### ***Future production and infrastructure requirements***

The draft of the Queensland Freight Strategy identifies that developing effective and suitable freight access is important to meeting the Queensland Government's plans to double agricultural production by 2040. ASA supports this view – however, the draft of the Queensland Freight Strategy does not identify the role of local, state and federal government in light of the Costello Commission of Audit. In light of the responsibilities of government, the final version of the Freight Strategy needs to provide a clear direction on how it will compliment the goals of the Queensland Agriculture Strategy.

Development of potential new “important agricultural areas” has been identified in the Queensland Agricultural Land Audit. In the final Queensland Freight Strategy, the Government must identify opportunities and challenges to developing “important agricultural areas” as defined in the Queensland Land Audit.

Agricultural production in Queensland is seasonal in nature and is generated from a geographically dispersed production base. ASA understands that this may pose logistical challenges to reliable and efficient freight movement. However, as the Queensland Government's plans to double agricultural production are realised, there will be significant land use change leading to intensification, with greater value of agricultural commodities per kilometre travelled. For example, new sugarcane cropping areas will increase the value of goods freighted per hectare of land.

In greenfield expansion of the sugarcane industry, it is unlikely that sugarcane will be transported from outside a 60 km radius of a mill. New mills will need to be built in new sugarcane production areas. Transport of sugarcane over long distances is not efficient, however transport of sugar over long distances from mill to port can be economically efficient.

New sugarcane production areas would also require other freight infrastructure, potentially including storage and transport options for moving raw sugar to ports not currently used for sugar and additional capacity at existing sugar ports. The impact of additional freight from this industry and other agricultural industries that are also expected to grow requires careful planning along the supply chain. The integrity of existing infrastructure such as cane railways and bulk storage facilities should be considered when planning new freight infrastructure.

## **Priority 1: Rail**

### ***Cane railways***

Despite the efficiency and broader community and safety benefits, the cane railways have not expanded with the growth of the sugarcane production areas. Sugar millers are able to

maintain existing cane railway networks by purchasing second-hand rail, but establishing new railways and networks requires a payback period of 50 years or more.

Maintaining the existing cane railway networks is currently dependent on group purchase of second hand rail, typically rail from decommissioned lines as far away as Victoria. Without access to second hand rail, mills could not afford to replace worn or damaged rail. This is a particular issue for sugarcane railways during flooding and cyclone events. The cost of insuring this infrastructure is uneconomic – but mills bear an additional private cost to replace rail lines during recovery for a large public benefit.

The ASA suggests that the final version of the Queensland Freight Strategy includes recognition of the cane railway network and include actions to protect and enhance the existing network. Actions would include consultation with the milling industry when proposed regional and transport planning policy has the potential to affect the economic efficiency or sustainability of the cane railway network.

### ***Rail transport of sugar to ports***

Around 80 per cent of the raw sugar produced in Queensland is exported. The most efficient transport is by rail, but more than half of the raw sugar is transported to the bulk sugar terminals by road. Raw sugar from the mills is increasingly being transported by road due to the escalating costs of rail freight through Queensland Rail. The opportunities for access to rail freight described in the draft *Moving Freight* strategy (P36) are not apparent for the sugar industry.

ASA would welcome the opportunity to discuss options to better enable the sugar industry to access rail freight for transporting raw sugar to export terminals. Innovative options, such as multi-use containers, are needed to better manage seasonality of agricultural produce.

## **Priority 2: Road freight network access**

Higher capacity vehicles offer important improvements in productivity and efficiency for the sugarcane farming and harvesting sectors of the Queensland sugarcane industry. The draft of the Queensland Freight Strategy correctly identifies that increasing efficiency of OSOM vehicles can increase industry productivity and regional economic development. However, the final version of the Freight Strategy needs to be more specific in outlining steps that will be undertaken to reform the regulation of OSOM vehicle movements in Queensland, particularly in the agricultural sector.

The current system requires OSOM movement proponents to apply for a permit without a designated timeframe for approval or any guarantee that the movement will be approved. There is no set check-list of information that is required by TMR to assess applications for OSOM applications. As a result, decisions can appear to be ad-hoc and even at the will of the presiding TMR officer. As an industry that requires flexibility in harvester movement to meet the just-in-time delivery for a mill and to respond to climatic variability, this system profoundly restricts harvester movement and does not work.

To improve the OSOM permit system, the onus of regulation and movement restriction needs to be reversed – from the road user to the road owner. Reversing the onus of movement restriction requires effective asset management collaboration between local, state and federal governments and an understanding of the seasonal freight requirements of Queensland’s agricultural industries. For example, OSOM sugarcane harvesters and haulage units (with the appropriate pilots) should be allowed to operate in all areas at all times within a defined agricultural zone (for example, 60km from the nearest sugarcane mill), except to account for pre-determined local safety requirements.

This would mean that harvesters, haulage units and agricultural pilots are free to operate within a designated zone, to conduct a designated task (for example, harvest sugarcane) as required. However, if there are specific times or places that are not amenable to OSOM movements, then movement would be restricted in those times and under those conditions only. Some examples of movement restrictions could include: travel on roads immediately before and after the start and finish of a school-day, peak traffic times of critical roads, low-payload or narrow bridges, urban or built-up areas.

Reversing the onus of movement restriction would significantly improve first and last mile access to cane-rail sidings and mills in the sugarcane industry and increase efficiency of the paddock-to-rail siding haul-out freight systems. Increasing the focus on asset management will also allow government to easily identify infrastructure bottle-necks and assist direction of future improvement efforts.

### **Priority 3: Freight infrastructure investment**

There are a number of examples of transport infrastructure bottlenecks for sugar and other agricultural products that limit further productivity and other improvements for transport systems. With some strategic investment, the productivity, community benefit and safety of these affected freight corridors could be vastly improved.

The cane railway network and all rolling stock is owned, operated, upgraded and maintained by sugar milling companies. This substantial infrastructure system operates without public funding support. Extensions to the network would be very beneficial to the sugarcane industry and the broader community, but are currently cost-prohibitive.

Most sugarcane growing districts across Queensland could benefit from extensions to the cane railways to increase transport efficiency and improve road safety. Examples include:

- The Tully cane railway network south to Kennedy
- The Herbert River cane railway network south, towards Townsville
- The Proserpine cane railway network south towards Gunyarra
- Altering the route of the existing cane railway network to by-pass the built-up areas of Ingham

ASA would welcome the opportunity to discuss options for joint public/private investment in cane railways, to enable some of these extensions and improvements to occur. Joint investment would be appropriate considering the public benefits that cane railways provide

for the broader community, such as the volume of freight movements that would be removed from public roads each sugarcane harvesting season.

## **Priority 4: support future freight growth**

Sugar mills and cane railways require a critical mass of sugarcane production areas within close proximity of the mills to remain viable by processing the sugarcane within 24 hours of harvesting. Cane railways that pass through other land uses lose cost-effectiveness compared with areas of high concentration of sugarcane production. Effective regional planning can help keep the critical mass of local production and protect the integrity of existing cane railway networks.

Urban development continues to have an impact on all modes of transport in sugar growing regions and transport costs are growing for the sugar industry, contributing to an erosion of the industry's international competitiveness.

There are greater operational difficulties and safety considerations for cane trains passing through urban areas and other transport corridors, which in many cases have built up over time around existing cane railways. The sugar industry would welcome opportunities to improve these affected cane railways, including options such as by-passing urban areas and improved road-crossings.

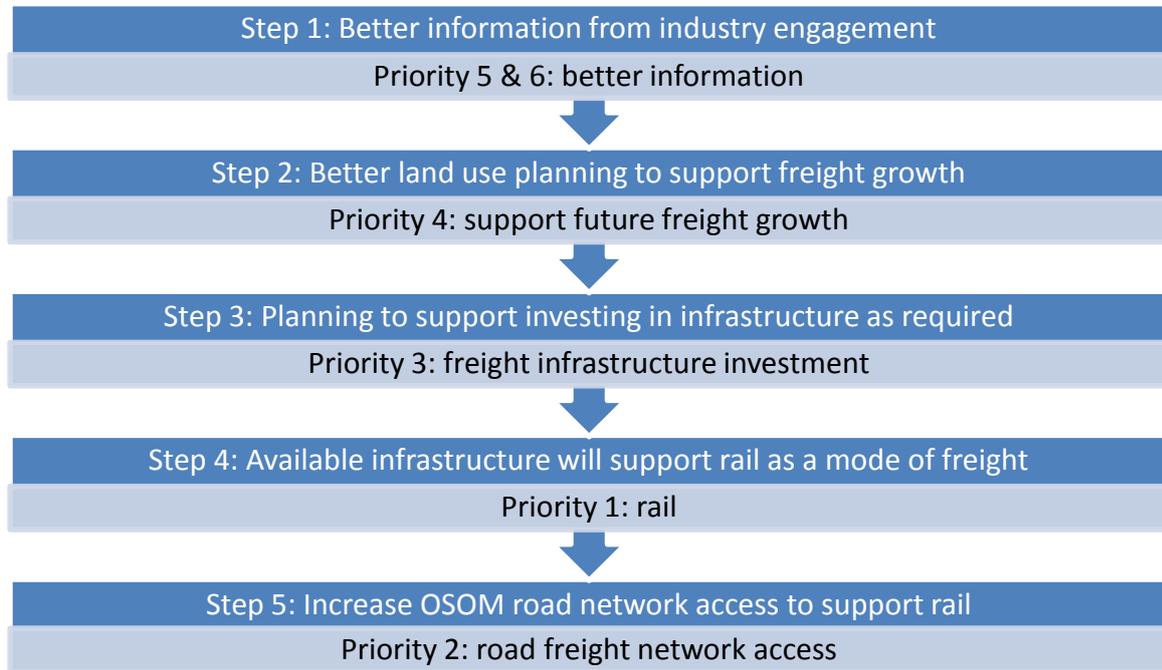
To stabilise current sugar production and enable opportunities for growth in the industry, planning and investment approaches that consider improved freight options are required. There is an opportunity for the State Government to join with the sugar industry through such measures as investment in multi-nodal corridors and contributing to extending and upgrading existing cane railway systems. ASA would consider the concept of capital contribution to multi-nodal corridors where there are long term benefits for the sugar industry.

## **Priority 5 & 6: better information through industry engagement**

To improve heavy vehicle and freight policy for agriculture, ASA recommends the Strategy include the establishment of an Agricultural Industries Freight Council (AIFC), to work parallel with the RFIC and the QTLC. An agriculturally focussed freight council will provide meaningful information to assist in the development of policy, planning, investment and technical solutions – across agricultural supply chains.

The draft version of the Queensland Freight Strategy aims to develop better freight policy and improve information flows between different government jurisdictions and industry. This approach is commendable – so too are efforts to better engage with industry through freight councils, such as the RFIC and QTLC councils. However, better policy and better information is not independent of better engagement with industry. ASA would suggest combining the two priorities as they are by nature, complimentary.

Better policy comes from effective engagement with industry, and leads to better planning and investment decisions that will support future freight growth. ASA recommends the final version of the Queensland Freight Strategy be restructured to reflect the flow of engagement and information to improved outcomes.



The ASA appreciates the opportunity to provide feedback on the draft of the Queensland Freight Strategy and welcomes a continued engagement with the Queensland Government on the future strategy and its implementation. Rail, road and port transport are integral to the sugar industry economic model and the Australian sugar industry has invested heavily in freight infrastructure throughout its supply chain.