Genesee & Wyoming and its subsidiary, Freightliner Australia would like to thank the New South Wales Environmental Protection Agency (EPA) for the opportunity to respond on the Consultation Paper – Clean Air for New South Wales.

Genesee & Wyoming Inc. (GWI) is a public company (New York Stock Exchange: NYSE ticker: GWR) with a current market value of approximately U$3.75 Billion (A$5.0 Billion) and annual revenues of greater than U$2.0 Billion.

Genesee & Wyoming (G&W) owns or leases 121 freight railroads worldwide that are organized in 10 operating regions with 7,200 employees and more than 2,800 customers. In Australia, G&W currently employs over 350 train crew across its national footprint, and has a long history of owning, operating and/or delivering bulk and intermodal projects globally.

G&W’s nine North American regions serve 41 U.S. states and four Canadian provinces and include 113 short line and regional freight railroads with more than 13,000 track-miles.

G&W subsidiaries provide rail services at more than 40 major ports in North America, Australia and Europe.

G&W’s Australia Region, which consists of Genesee & Wyoming Australia (GWA) and Freightliner Australia (FLA), provide rail freight services throughout New South Wales, including the Hunter Valley, the Northern Territory and South Australia and operates the 2,200-km Tarcoola-to-Darwin rail line.

Genesee & Wyoming (G&W) is committed to providing safe and efficient freight transport as an environmental benefit to the community.

G&W would like to respond to the consultation draft in relation to a number of facets of the paper, being:

- Inconsistency with existing legislative principles and strategies;
- A flawed prioritisation of rail as a priority area;
- A focus on maximising potential health benefits of the community through priority areas;
- Changes to the Air Quality metric;

Inconsistency with existing principles and strategies

G&W is concerned that the approach being taken by the EPA does not take an ‘all of Government’ approach, and is not consistent with the “Seven Principles of Better Regulation” as defined by the Coalition of Australian Governments (COAG), in particular, the 3rd and 4th principles:
The impact of government action should be properly understood by considering the costs and benefits of a range of options, including non-regulatory options, and

Government action should be effective and proportionate.

A flawed prioritisation of rail as a priority area

G&W supports the approach taken by the EPA, that priority areas should be identified for further investigation, so that emissions that have large impacts on air quality and human health can be targeted. Any action taken will therefore have the greatest potential to provide cost effective solutions that have the greatest benefit to the health of the community.

The Clean Air for NSW Consultation paper was established by the NSW Government specifically to identify these priority areas. However, the inclusion of rail as a priority area seems contrary to the data contained within the report, and, as a result, appears to have pre-empted the outcome. This is explained further below.

The NSW EPA has itself noted¹ that the emissions from locomotives are not included in the top ten (10) human made emission sources in NSW for particulate matter and sulphur dioxide, contributing only 0.2 % of the total PM10 emissions, 0.6% of PM2.5 emissions and 3.4% of nitrogen oxides emissions. Figures 5 and 6 of 'The Clean Air for NSW’ Consultation Paper do not include Rail Transport in the Top Direct Human Made or Human and Natural sources of PM2.5 (and other pollutants??) Furthermore, the EPA has stated that “The strategy presents actions to improve the evidence base, trial technologies and progressively control and reduce emissions from priority sectors”². It is therefore clear based on the EPA’s own data and reports that locomotive emissions are not a material contributor sufficient to impact air quality, and that little or no benefit would be achieved by regulating this aspect.

G&W also notes that the consultation draft has highlighted the Hunter Valley (page 24) presumably based on the determination that coal mining is the top direct human-made source of PM2.5 emissions as indicated in Figure 5. In contrast the evidence provided in Figure 9 of the document, notes that average PM2.5 mass and composition for Liverpool, and Mascot in Sydney are marginally higher that the Lower Hunter, and significantly higher than the Upper Hunter sites monitored by the Australian Nuclear Science and Technology Organisation (ANSTO). This is further supported by the data presented in Figure 2 which notes that North Western and South Western Sydney have a demonstrated history of “poor or worse” air quality that the Upper or Lower Hunter, G&W would seek to understand if the focus on the Hunter Valley is in response to an evidence based approach, or to some other influence.

It is therefore unclear how rail has been defined and confirmed as a “priority area”. G&W would pose that the effort and cost to achieve a significant reduction would be grossly disproportionate to the benefit achieved. G&W acknowledges that increasing traffic on rail will increase overall emissions, however, the environmental benefits of rail over motor vehicle traffic and emissions should be considered, noting the comment made in the consultation paper on page 45 that “each freight train is equivalent to approximately 150 semi-trailers, and transporting freight by rail generates only one third of the greenhouse gases produced by road transport”. The paper then goes on to further elaborate that the move from road to rail will reduce congestion, reduce emissions and diesel use by approximately 40 million litres for the North Sydney Rail Corridor Program alone.

Page 33 of the consultation paper includes locomotives in non-road emissions, contrary to the separation of 'Rail Transport' in figure 7.

¹ 2008 NSW EPA Air Emissions Inventory for the Greater Metropolitan Region in NSW, Consolidated Natural Made and Human-made emissions

² Diesel and Marine Emissions Management Strategy 2015

Genesee & Wyoming Australia
Level 3, 33 Richmond Road, Keswick SA 5035 PO Box 309, Marleston DC SA 5033
Tel: (08) 8343 5455 Fax: (08) 8343 5454 Web: www.gwrr.com
Pages 28 to 40 articulate a number of priorities for “Clean Air for NSW”, together with actions and goals. It is not clear if these priorities and goals are listed in order of significance, however, page 27 notes that the actions themselves “have been prioritised for further investigation”, “on the basis that they have large impacts on air quality and human health based on the evidence”.

It is apparent from the information provided in the Clean Air for NSW consultation paper that the greatest benefit to air quality would be through the proactive management of household wood fired heaters. It also notes that this emission source “contributes 47% of annual PM2.5 in Sydney, and “up to 75% of particle emissions in July each year”. Give EPAs goal to “improve average air quality results across NSW”, a focus with action on this priority area would make a significant contribution to achieving this goal.

Assuming that the PM$_{2.5}$ emissions from rail are less than or equal to those produced in Shipping as shown in Figures 5 and 6 of the Clean Air for NSW Consultation Paper, a reduction of ten percent (10%) in emissions from Wood fired stoves would be greater than the total PM$_{2.5}$ emissions contribution from rail. Noting that an equivalent 10% reduction in locomotive emissions would have a negligible impact on the improvement to total emissions.

It is therefore unclear how rail has become a priority area, ahead of other sources, for example, ferrous metal manufacturing.

The recent final report on the Independent Review of Rail Coal Dust Emissions Management Practices in the NSW Coal Chain from the NSW Office of the Chief Scientist and Engineer in 2016, observed that “further targeted studies are needed to better understand the nature and distribution of particles along rail corridors”. This is noted by the Clean Air paper on page 20 and further supported by the EPA’s own statement on page 23, that fine particles can travel “a thousand or more kilometres from their original sources”.

The inclusion of the management of dust emissions in the Hunter rail corridor as a priority area does not seem to have been justified by the observations made in the paper, or by the Chief Scientist, until such time as these targeted studies can be completed and the appropriate actions taken on an evidence basis.

Changes to Air Quality Metric

GWA acknowledges that the details of the Air Quality Metric have not yet been finalised, and therefore it is unable to respond appropriately to the establishment of such a metric. However, it is appropriate to raise initial concerns that the perceived benefits of the new metric may not be realised as anticipated in the Consultation Paper. These concerns relate to the ability of the metric to be timely considering source data regarding population numbers, and its ability to track the effectiveness of policy decisions.

GWA would also seek further clarification as to how the proposed metric relates to the National Environment Protection Measure (NEPM) endorsed by the Federal Department of The Environment and Energy.

Maximising health benefits

G&W supports the approach taken by the EPA, that priority areas should be identified for further investigation, so that emissions that have large impacts on air quality and human health can be targeted and action taken will have the greatest potential to provide cost effective solutions that have the greatest benefit to the health of the community.

However, it is unclear how a negligible improvement to air quality resulting from rail improvements will reduce the costs of health care and improve mortality rates.

In providing this information, GWA would note that locomotives currently operating in the Hunter Valley and regional New South Wales have been manufactured with the newest design of engine (GE 7FDL engine). From information provided by the Original Equipment Manufacturer, General Electric, PM emissions currently exceed the US Tier 0+, and therefore the organisation has made a significant effort to support low locomotive emissions in these areas.
In other words we are already doing all we can to support low emissions.

Furthermore, GWA would reiterate that the data provided does not assist in, or correlate to, the identification of the priority areas noted. The accompanying commentary to Figure 2 states that “Sources contributing to fine particle concentrations across NSW are similar because these particles can travel a thousand or more kilometres from their source or the source of their precursor gases”. This statement appears to have been included to justify the reason that priority areas are not linked to the data, but only casts doubt on the accuracy of the data provided. There is no reference to the contribution of emissions in the Hunter Valley made by rail operations.

The EPAs own Diesel and Marine Emissions Management Strategy (January 2015) notes that diesel locomotive emissions “are currently a relatively minor contributor to regional PM2.5 loads”, but they “can impact on local communities”. This again, supports GWA’s position that the rail industry is not a priority area, and therefore greater benefit to health can be achieved by other means.

In closing, GWA would reaffirm its view that the rail industry should not be a priority area, given the gross disproportion of cost to benefit required to achieve the goals and outcomes as defined in the paper.

Greater benefit would be achieved through proactive management of those emission sources that contribute greater levels of particulates, with a greater impact on human health, and the environment generally, taking an evidence-based approach.

Yours sincerely

[Signature]

David Brown
Managing Director