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The Committee Secretary
Standing Committee on Primary Industries and Regional Services
House of Representatives
Parliament House
CANBERRA ACT 2600

Dear Secretary,

**Inquiry into the infrastructure and the development
of Australia's regional areas**

I would be grateful if you could bring the following letter to the attention of the Committee as a submission. The purpose is simply to give some aspects of the value of an efficient rail system to regional Australia, and some opportunities to improve the system.

1. In the first place, rail has a dominant role in moving export coal, iron ore and wheat to our ports. These large freight tasks are being performed with increasing efficiency, which is vital for Australia's international competitiveness. The aggregate value of coal, iron ore, and wheat exports in 1995-96 was \$14 billion (b - respectively \$7.77 b, \$2.87 b, and \$3.39 b (Australian Bureau of Statistics - ABS, 1996a)).

Re coal, Central Queensland narrow gauge trains haul more than 80 million tonnes of coal a year using high voltage electric traction. This underpins an extensive export operation, and the rail operations also support employment in cities such as Rockhampton (including, for example, a Centre for Railway Engineering at Central Queensland University) and other locations. Hunter Valley coal operations now average over a million tonnes a week - mostly with 3000kW diesel electric locomotives hauling trains with about 8000 tonnes of coal. The efficiency of operation is vital to the economy of the Hunter Region and Newcastle.

Re iron ore, over 130 millions of tonnes of iron ore in the Pilbara region of Western Australia are now moved each year in the world's most efficient freight trains. The "world best practice" efficiency of the iron ore railways is due to their high quality track and leading edge heavy haul technology developed in Australia.

All mainland State Railways, and now the privately owned Australian Southern Railway in South Australia, are involved in the movement of wheat.

The sugar railways in Queensland are also important to regional economies.

2. Queensland Rail, along with opening a new passenger line from Brisbane to the Gold Coast in various stages to 1998, and commissioning of additional Brisbane City rail tunnels in 1996, also completed in 1997 a five year \$590 million five year Mainline Upgrade (MLU) project. The main work in MLU from Brisbane to Cairns was, along with the acquisition of 250 new **container wagons** in 1995:

- A. Supply of 40 new generation 3000hp **locomotives**. These were built in Townsville.
- B. Upgrading of **bridges** for heavier axle loads. A total of over 670 old timber bridges had been replaced with concrete box culverts or concrete bridges in order to achieve a minimum axle loading of at least 20 tonnes. A further 157 bridges were strengthened.
- C. **Extensive deviations** to improve the track alignment. From Rockhampton to Cairns, 21 deviations over 34 km of new track were completed in 1995 with a ruling curvature of 1250 metres. Between Nambour and Gladstone, 30 deviations (over 83 kilometres with many new bridges) were commissioned by October 1996. These deviations replace older sections of track with excessive curvature, have a ruling grade of 1 in 90 with no curve tighter than 2200 metres radius, and have eased grade restrictions allowing for heavier freight trains. This work complemented the operation of high speed passenger 'tilt trains' that entered service in late 1998 between Brisbane and Rockhampton (640 km) and reduced present transit times from 9.5 (electric train) to 7 hours, whilst improving services to intermediate towns. The main deviations are (with km north of Brisbane).

Tandur - Meadvale (151.3 to 159.5 km - saving 0.9 km) An 8.3 km deviation on easy grades and curves replaced an old 9.2 km section with 1.16 km of grades steeper than 1 in 66 (ruling 1 in 55) and 4.44 km of curves of radius less than 800 metres. The work included relocation of a local road, bridges, improved flood mitigation, and, a deep cutting at the north end. It was commissioned on 14 October 1996.

Gunalda (196.9 to 206.9 km = 204.818 - saving 2.1 km) An 8 km deviation replaced a 10 km section with 1.65 km of grades steeper than 1 in 66 (ruling 1 in 50 both ways) and 4.70 km of curves of radius less than 800 metres including 0.92 km of red sectors (tight curves on steep grades). The Gunalda deviation was commissioned on 27 February 1995, giving immediate time savings for the I.C.E. train of about 6 minutes.

Watalgan (391.8 to 404.5 km - saving 0.3 km) A 12.7 km deviation with ruling grade 1 in 93 and no curve tighter than 2200 metres replaced a 13.4 km section with 5.23 km of grades steeper than 1 in 66 (ruling 1 in 50 both ways) and 4.06 km of curves of radius less than 800 metres including 1.64 km of red sectors. As noted by QR Facts Sheet 11 (April 1996), the Watalgan deviation is the longest deviation and its commissioning, on 26 February 1996, "*...has significantly eased the grade restrictions between Brisbane and Rockhampton and permits trailing loads to be significantly increased.*"

These rail deviations gave useful employment opportunities to many local people over a several years. They have also served to improve rail freight and passenger services to the benefit of regional economies. Queensland's passenger trains are also liked by tourists.

3. On 6 November 1998, Queensland's new tilt train that started operations between Brisbane and Rockhampton. As argued by this writer, in an article *The Queensland tilt train - should NSW follow this lead*' Sydney-Canberra High Speed Rail Conference, Proceedings, p37-41 the new tilt train had two important parts:

THE TRAIN Two six car sets were built at Maryborough, giving valuable employment opportunities, as outlined in a 1996 Queensland Parliament report on the tilt train.

THE TRACK This was upgraded as part of the Queensland Mainline Electrification project of the 1980s, and the Queensland Mainline Upgrade project of the 1990s that saw 120 km of high quality rail deviations constructed at various locations between Brisbane and Rockhampton to replace the worst aligned older track. This investment was driven by the economics of offering better rail freight services at a cheaper rate.

Thus Queensland, with just 3 million people, has the Southern Hemisphere's first regular tilt train service. NSW, with 6 million people, had to settle in 1998 with the Prime Minister and others talking up very fast trains between Sydney and Canberra, plus a NSW Parliamentary Report on the tilt train released in November 1998, which affirms the need for more mainline track upgrading to remove the worst of the curves. NSW could do a lot worse than follow the Queensland approach, and it may well prove the way ahead rather than to rely on expensive European options.

In this regard, in 1981, proposals were made for Goulburn - Yass rail realignment with a 45 kilometre spur line to North Canberra, to run improved XPT services. The cost then, with some more XPT train sets - a mere \$200 in 1981 terms (so about \$460 million now). It did not proceed, and after a lot of delays, we now have a \$4000 million Speedrail proposal. Meantime, the present Goulburn - Yass rail alignment is grossly deficient and compares very poorly with the new Hume Highway between Goulburn and Yass.

4. In August 1998, a report "Tracking Australia" of the House of Representatives Standing Committee on Communications, Transport and Microeconomic Reform was released. To quote from the Chairman of the Committee, Mr Paul Neville (Hinkler, Qld, NP) in the House of Representatives on 8 February 1999: *"The most neglected mode of Australian transport is unquestionably rail. As we approach the 21st century we expect it to make a significant contribution to the efficiency of the Australian economy, but for the most part we restrict it to a 19th century capability. If you think I exaggerate, I refer you to the Melbourne to Adelaide rail link. ... Little wonder then that the journey takes three hours longer by rail than by car and that the rail transit time between these two major*

Australian capitals is 13 hours—the same time that it took 60 years ago. Little wonder then that industry, business and tourism ask: is government serious about rail?

Mr Neville said that the report "Tracking Australia" "...pulled no punches in its bipartisan report into the role of rail in the national transport system. It was a unanimous report ...the committee had recommended three key actions for the Commonwealth to undertake. The first was to declare a national track on the standard gauge rail track linking Brisbane to Perth via both Melbourne and Broken Hill. By declare we mean declare it for purposes of access. The second was to address the chronic infrastructure deficiencies in the national track and the third was to immediately invest in the national track - some \$750 million to fix the worst deficiencies in the next three years, followed by \$2 billion from 2001. "Mr Speaker, that might sound like a lot of money, but when you consider that Queensland Rail will have spent nearly a billion dollars between Brisbane and Townsville in less than a decade on just one line it is not a big ask that, for a national system that links the five mainland capitals, we spend \$2.75 billion over 12 or 13 years. What is important about it is that we have a bipartisan will to make it happen. The benefits are immeasurable. I again refer you to Queensland Rail, which has done some very innovative things over recent years. They have recently opened the tilt track line between Brisbane and Rockhampton. As recently as the 1980s, the train took 14 hours for that journey. The tilt train takes seven."

The report made 16 recommendations and noted that whilst the iron ore railways in the Pilbara region operate at world's best practice, the track linking Australia's five mainland state capitals needs urgent upgrading. Other major problem areas include Sydney which needs separation of freight and passenger trains, and outmoded safe-working systems.

Six other MP's spoke during this debate, including Mr Colin Hollis, (Throsby, NSW, ALP) and Mr Stuart Macarthur (Corangamite, Vic, LP). Mr Hollis noted an urgent need for "... the upgrading of the safe-working arrangements between Casino and Brisbane." which featured on The ABC 7.30 Report on 6 November 1998 and "... the current upgrading of the Pacific Highway to a near four-lane standard by 2005 may prove to be in vain if all it achieves is taking more and more freight off rail and putting it onto B-doubles.", also, we needed to "... compare the national benefits of spending \$1,000 million on facilitating road trains on the Newell and Goulburn Valley Highways, or to spend about the same amount in developing a basic inland standard gauge railway from Melbourne to Brisbane via Parkes that would be capable of carrying double stacked containers."

Mr Macarthur noted the iron ore railways in the Pilbara region operating at world's best practice, which "...proves that we can do it here in Australia if we are prepared to invest I would advocate to members of this House that we get our current railway system in order. Let us make the investment. Let us make the rolling stock better. Let us get

the track in order. Then we can start looking at new investments such as Alice Springs-Darwin."

The above approaches are supported by this writer.

5. More comment on the Neville Committee's report follows. Along with dealing with 117 primary submissions, and public hearings, the Committee held various inspections, including the world's most efficient freight trains hauling iron ore in the Pilbara region of WA and saw Queensland Rail's new tilt train. On the other hand, the Committee saw track in Victoria that had old wooden sleepers and severe speed-weight restrictions complete with a giant pile of new concrete sleepers. These sleepers had been sitting near the side of the track for three years whilst Governments and rail systems argued who was going to pay to insert them. It is of note that the great sleeper pile is now on the move with some help from the Victorian and Federal Governments along with the Australian Rail Track Corporation that was finally set up in 1998. On the other hand, did the giant pile of concrete sleepers really have to sit by the side of the track for 4 years.

The report 'Tracking Australia' released in August 1998 observed just how bad some of the national rail track is. The lack of Federal funding for three years following the 1992-1995 \$430 million program has not helped. The Committee felt that if this track is not fixed up soon, we run the risk of losing part of the national network linking our capital cities - and providing a vital link to much of regional Australia. This may be considered as extreme, however, as the hearings progressed, the poor state of the interstate track became more apparent. For example, the former Federal Treasurer, the Hon Ralph Willis, MP on 5 May 1998 said:

"... I must say that what has come out of the inquiry to me is just how bad the system is. I am sort of shocked to realise just what a terrible state the railway system is. It is a national disgrace.

Obviously, if we are to have a viable industry, it needs a hell of an application of effort by government to bring that about, and a lot more than we look on track to be doing at the present time. ...

... we have more money being poured into the Pacific Highway and money now being put into the Newell Highway, ... giving a direct link from Melbourne to Brisbane. All that makes road transport more efficient. ...it seems to me that there needs to be something pretty dramatic done to rail if we are going to have it, or else we should decide not to have it."

The entire Committee, in its resolve to address "**...chronic deficiencies in the interstate national track**" recommended an investment of \$1 billion over the next three years, to be followed, after 2001, with a further \$2 billion. The \$3 billion was in line with an earlier estimates prepared for a National Transport Planning Task Force (NTPT). The Committee noted **urgent priority measures** as follows [1, page 139, Box 5.2] including: Sydney; improve freight movement through Sydney

Albury - Melbourne and onto Adelaide; rerailling and resleepering, double stacking clearances, train control

Newcastle - Acacia Ridge; curve and grade easing also for Albury Sydney and Adelaide Hills Kalgoorlie - Kewdale; some track upgrading and crossing loops

Along with funding for dedicated interstate rail tracks, support was given to the concept of "tracks of national importance" or TONIS. Improved rail safety standards, operating practices, and accredited rail training courses were also supported.

A further recommendation urged quick funding to upgrade some obsolete safe working systems. The ABC 7.30 report on 6 November 1998 showed the slow progress of a National Rail train between Brisbane and Casino with an electric staff. This is one reason why the average terminal to terminal speed of Sydney - Brisbane intermodal freight trains is about 50 km per hour - another is that the track between Sydney and Brisbane has over 40% of its length failing to meet the basic fast freight train standard of no curve having a radius of less than 800 metres. In 1989, a consultants report for State Rail found the corridor north of Maitland was not viable. Five years later, a further report found that for Sydney -Brisbane: *"Transit times, reliability and costs are so poor that the corridor may not survive as a commercial freight alternative unless improvements are implemented."*

Today, the current upgrading of the Pacific Highway to a near four lane standard by 2005 coupled with no firm plans to upgrade Maitlane - Brisbane rail link except for a few extra crossing loops is a recipe for taking more and more freight off rail and putting it onto heavy semis and B-Doubles. The closure of the line would then be likely. In such a situation, the future is bleak for all lines that do not carry high tonnages of bulk freight.

To turn the situation around, the Committee stated the need to upgrade the national railway network so that freight trains could operate efficiently, and compete against trucks using the upgraded National Highway System (NHS). Here, the Committee made it clear that the \$250 million then on offer by the Howard Government was simply not enough.

At present, the Howard Government is hoping that the States or the private sector will come up with the cash to upgrade the track. But the reality is that whilst the Federal Government pours money into the NHS - \$18 billion in today's dollars from 1974 to 1999- and seems happy for B - Doubles in Australia to pay about one quarter of what they would have to pay in New Zealand with mass distance pricing. So in Australia, there is little incentive for the private sector to invest in rail track. **There would be even less incentive if pre-election promises to reduce the excise on diesel for road and rail are put into place.**

6. The following questions affecting inland NSW may be of interest to the Committee.
Could we see double stacked containers on trains moving Melbourne - Brisbane freight through Parkes within ten years ?
Or, should we see road trains on the length of the Newell Highway ?

A Maunsell report released February 1998 noted a need to identify a longer term Melbourne Brisbane route capable of double stacked container movements. This length of haul between these two cities is best suited to rail. Yet, as noted in 1995 by the NTPT (1995, p11) *"...rail only carries 21 per cent of the long-distance freight. - for various reasons -Rail traffic has to pass over more difficult terrain than road, through Sydney, and over a distance 24 per cent longer than road. Road traffic travels along the Newell Highway, covering the door-to door distance in 22 hours, compared with rail which requires 37 hours from terminal to terminal."* Some market intelligence suggests rail's share has since fallen from about 20 per cent to 15 per cent.

In February 1998, the Government announced a study of the use of road trains on the length of the Newell Highway, with some pressure to extend their area of operation on the Newell- possibly as far as Dubbo. An earlier report had found \$1 billion would be warranted for the Newell highway and its extension into Victoria, where Mr Neville's Committee in the 1997 roads inquiry found a lot of pressure to spend money in the Goulburn Valley - noted by Mr Hollis in his speech on 8 February 1999 to be about \$500 million. As he said in Parliament, we need to *"... compare the national benefits of spending \$1,000 million on facilitating road trains on the Newell and Goulburn Valley Highways, or to spend about the same amount in developing a basic inland standard gauge railway from Melbourne to Brisbane via Parkes that would be capable of carrying double stacked containers. For his part, he would prefer to see **"...trains on tracks rather than road trains on our national highway system in the eastern states"***

As above, the choice seems to be: Either more and more of Melbourne - Brisbane freight will go on the Newell Highway, and through towns such as Parkes, Dubbo, and Moree in ever bigger and larger numbers of trucks. Or upgrade the rail tracks through Parkes, Dubbo, near Werris Creek, and via Gunnedah, Moree and Southern Queensland to build a basic inland railway. To quote from a paper (P Laird, M Michell and G Adorni-Braccesi) *Melbourne - Brisbane rail upgrading options - Inland or Coastal*, Australasian Transport Research Forum, Sydney, Vol 22, p 243-258 a basic inland route by use of current NSW lines with minor upgrading, and substantial upgrading of southern Queensland lines, would allow for a saving in Melbourne - Brisbane freight train transit times from about 35 to 21 plus hours, with an average running speed of about 90 km per hour. One reason is that 77 per cent of the Cootamundra - Werris Creek - Boggabilla track meets the demanding QR Mainline upgrade standards of no gradient steeper than 1 in 90 and no curve radius tighter than 2200 metres. This is much better than the 'steam age' alignment of the coastal route. The Inland route has three locations where new Y links would be needed to avoid reversing trains - at Parkes (finally under construction and due for completion in Autumn 1999), Binnaway, and The Gap (near Werris Creek). These links would shorten the existing distance, and cut about 3 hours off the transit time.

A Y link at Merrygoen would also help Dubbo - Newcastle freight trains.

Double stacked container capability would be much easier on an inland route via Parkes than with the existing coastal route. The ATRF paper also noted that there is a clear role for the Federal Government, in conjunction with the NSW and Queensland Governments, in evaluating rail track upgrading proposals to remove speed, weight and height restrictions along with improving competitive neutrality between rail and road. To this end, there is scope by these Governments to undertake a detailed study that would examine the relative merits of upgrading the existing rail links, or developing an inland route, with any necessary gauge standardisation from Cootamundra to Brisbane through Parkes, Dubbo, Moree and near Goondiwindi.

To date, the Federal and NSW Governments have put off such a study. Queensland is actively working towards a new route over the Liverpool Ranges near Toowoomba, and is interested in connecting its system to Moree - with a reaction from the Port of Newcastle.

7. I wish to conclude on four Illawarra Region items. These are completion of the Maldon - Port Kembla Railway, the Oak Flats Interchange, the Waterfall - Thirroul tunnel, and a Picton rail bypass.

A. The Maldon - Port Kembla Railway was started in 1983 by the State Government, and after extensive construction work had been done, work ceased in 1988. I would be happy to provide, on request, a detailed account of the work done to date, and, the work needed to complete the railway.

B. In 1981, the NSW stated its intention to construct a new public transport interchange at Oak Flats. Despite the enormous growth during the 1990s in the numbers of nearby new house sites (roughly 10,000 in three major areas within Shellharbour City), there has been no funding for the interchange except for planning in the 1998 NSW budget, and a December 1998 promise to complete the work by 2002. The work will require extension of electrification from Dapto, and here it is of note that an earlier Commonwealth program gave assistance for Coniston - Dapto electrification, but, at present, there are no Commonwealth funds for urban public transport. The need to provide improved public transport to major new residential developments in regional Australia near our major cities remains, but new public transport infrastructure is poorly funded when compared with roads.

C. The present Waterfall - Thirroul line has poor alignment, plus severe geotechnical problems. In 1990, State Rail announced concept proposals, including a deviation in the Scarborough Tunnel / Stanwell Park Viaduct region, and, a new direct route with a long tunnel (about 10 km). The long tunnel project was promised by the NSW Government in December 1998 for completion by 2010, but this is a long time to wait.

D. No start has been made on a long overdue Picton Rail Bypass for the Main Southern line. A Menangle - Mittagong direct line (to follow the Hume Highway section completed in 1980) should have formed part of the former 'One Nation' rail capital works program or

an immediate follow on so as to improve rail efficiency between Australia's two largest cities, and the regional centres between Sydney and Melbourne. The Menangle - Mittagong direct line is now on hold, pending a resolution of the Sydney-Canberra high speed train options. Whatever happens to the Sydney-Canberra passenger trains, there is a need to improve rail freight efficiency between Sydney and outlying regions in NSW, plus Melbourne.

Please let me know if you would like more information. I would welcome the opportunity to meet with the Committee.

Yours sincerely,