

***“Among consumers, higher fuel prices are likely to have most effect on those who are highly reliant on car transport and lack alternatives. These people tend to be outer suburban residents and rural and regional communities.”***

*(“Australian Senate Report - Australia’s future oil supply and alternative transport fuels”)*

## 1. Executive Summary

The community organisation [Cairns Action for Sustainable Transport \(CAST\)](#) presents this submission to the FNQ 2025 Strategic Plan because we recognise that the current draft plan has the following serious flaws.

- ***Climate Change and Peak Oil:*** The draft fails to adequately recognise and address the severity of the identified threats stemming from Climate Change and Peak Oil.
- ***Renewable Energy:*** The draft fails to effectively commit to renewable energy as a fundamental part of any transport response to climate change and peak oil.
- ***Policy Disconnect:*** The draft fails to effectively translate the State Government aim of “sustainable transport” into policies capable of delivering on that commendable aim.
- ***Public Transport:*** The draft fails, by adoption of an inappropriate reactive model, to proactively embrace public transport for Cairns and region.

To **remedy** these four fundamental deficiencies, CAST seeks as a minimum response that the final FNQ 2025 plan:

- **Adopt** as a guiding principle the fundamental link between renewable energy and sustainable transport.
- Set a **minimum 40% reduction target** for the region's greenhouse gas emissions by 2025 in the statutory regulations.
- **Adopt a far more proactive approach to public transport** in lieu of the now inappropriate proposed reactive approach advocated in the FNQ2025 draft, before the rising cost of fuel creates hardship for most households and businesses, and leads to economic and social instability.
- **Adopt** a substantially higher target for public transport use within Cairns – from proposed minimalist target of 10% - **to at least 40% by 2025** but with planning for ultimately 60-70%.
- **Immediately commit** to a rail-based (permanent) central spine for a future renewable energy based public transport system for Cairns (incorporating the existing Gordonvale-CBD-Redlynch rail as the first stage).

## **2. Commitment to act on climate change and peak oil**

The FNQ 2025 plan draft fails to adequately recognise and address the severity of the threats stemming from global warming and peak oil.

FNQ faces the loss of many life forms on the Great Barrier Reef and in the Wet Tropics, inundation of large coastal areas including all of the Cairns CBD, loss of our tourism industry, increases in costs for personal and freight transport and the real possibility of oil shortages, to name just a few.

The current draft mentions some of these dangers. It does not adequately address them.

Nodal development will hopefully help to minimise increases in greenhouse gas emissions and oil dependency. It will not, however, reduce them, which is what is needed long before 2025.

Cairns Action for Sustainable Transport (CAST) urges that the FNQ 2025 plan address these imminent threats to our region. A target for radical reduction in the region's greenhouse gas emissions by 2025 of at least 40 per cent should be set. This is the minimum called for by many scientists to avoid dangerous climate change. Each council should be required to incorporate the target in all planning decisions. The regulatory provisions of the 2025 plan need to include provisions for implementation and monitoring of such a greenhouse gas reduction target.

Our FNQ region is ideally situated to become a model for dealing with climate change challenges. Unless we manage to implement and showcase sustainable solutions to visiting tourists, we risk losing tourism all together and face devastating consequences from climate change and fossil fuel dependency.

Complacency and delay would be irresponsible. The final version of FNQ 2025 must initiate and legislate for significant changes, the result of which will be significant reductions in greenhouse gas emissions and an end to dependency on oil and other fossil fuels.

## **3. A vision for sustainable transport in Far North Queensland**

CAST welcomes the statement in the draft FNQ 2025 plan that "The Queensland government aims to achieve a sustainable transport system throughout Queensland" (*FNQ 2025 draft, 8.1; p102*).

However, we are dismayed that the policies outlined in the draft plan do little toward achieving that aim.

Transport in its current form is one of the most significant sources for greenhouse gas emissions and of fossil fuel dependency. Transport is the single biggest source of greenhouse gas emissions from the Wet Tropics Region, accounting for 30% of all emissions in 2005 (Marsden Jacob Associates, 2007). CAST proposes the inclusion of a truly sustainable transport vision into the 2025 plan as outlined below.

Truly sustainable transport needs to be powered by renewable energy, integrate public and active private transport as the principal means of passenger travel and utilise electric railways and other non-fossil fuel transport modes for freight transport between regional centres.

#### **4. Shortcomings of the current FNQ 2025 Draft:**

The draft plan does not discuss how to directly improve the intensity of public transport usage. Instead, the draft plan relies mainly on “land use options that provide densities of population and intensities of land use activities to make public transport viable” (*FNQ 2025 draft, page 112*). It proposes to achieve only at least “10 per cent of all Cairns trips by public transport by 2036” (an increase from less than 5 per cent) and a “100 per cent increase in person trips by cycling in FNQ by 2021” (*FNQ 2025 draft, page 113*). Such targets appear inadequate to meet the draft plan’s suggestion to limit the increase of private car travel in Cairns to 15 per cent by 2036, given the expected growth of total distance travelled in the city is 73 per cent, (*FNQ 2025 draft, page 101*).

The draft plan does not make sustainable transport a more attractive transport mode than private cars. It envisages “private cars will continue to be used into the future for trips in FNQ” (*FNQ 2025 draft, page 101*), even for the vast majority of trips in the urban zone of Cairns. Also, the draft does not discuss how more sustainable freight transport and regional and inter-regional passenger transport might be established.

Furthermore, the draft plan is limited to bus way construction and bus-based public transport coverage in the medium to long term. It is unwilling to commit to the public transport infrastructure needed for significant public transport uptake.

The plan's draft condemns households, which currently spend an estimated \$12,000 a year to maintain and run one typical vehicle (*2008 RACQ survey: [Facts on Private Vehicle Expenses](#)*), to out-laying substantial funds for the purchase and maintenance of private cars as well as facing rapidly increasing

running costs. This continued reliance on private car transport deepens the social exclusion of our aged and anyone else who cannot drive, and entrenches the disadvantage of low-income families by limiting access to employment, education and services.

The CSIRO prediction of fuel prices of up to \$8 per litre by 2018 (*Fuel for Thought: Challenges and Opportunities, prepared by the CSIRO on behalf of the Future Fuels Forum, 2008*) and the willingness of people to change their mode of transport makes significant and immediate action imperative. This willingness is evident here in FNQ, as 74% of respondents to the October 2007 survey by the FNQ 2025 planners themselves said they are prepared to use an alternative form of transport to a car (<http://www.localgovernment.qld.gov.au/?id=5612>). Also 69% of respondents in a July 2008 Cairns Post survey said increasing fuel prices will change the way they commute.

Continued dependency on private cars for passenger transport also involves substantial costs related to the treatment of the resultant accidents and ill-health related to a sedentary lifestyle and vehicle pollutants, and more intangible losses associated with its reduction of social interaction.

## **5. Principal characteristics of sustainable transport for FNQ**

Cairns Action for Sustainable Transport says high quality sustainable transport must be created in FNQ, as it should be throughout the state and beyond. The main elements of sustainable transport in FNQ will be:

### **5.1 Transport powered by renewable energy.**

Radical reductions in greenhouse gas emissions are needed in the immediate future to halt climate change. In transport the greatest reductions in greenhouse gas emissions will be achieved only with the use of renewable energy for power. Hybrid vehicles fail as an alternative in this regard to the extent they are expected to operate in “freeway conditions” or on long-haul routes - that is, at speeds for which they use their petrol or diesel engines. Combinations of existing technologies of renewable energy production – of electricity and biofuels – can provide the means to run the needed vehicles. The provision of these forms of power, on the scale needed, must be included in *FNQ 2025*.

**5.2 Public transport which is comprehensive through its coverage and frequency, supplemented by and integrated with active transport<sup>1</sup>, as the principal means of passenger travel in Cairns and FNQ townships.**

Only public transport can sustainably meet needs related to transport in an urban environment. These include the effective movement of people in all weathers, reduction and elimination of greenhouse gas emissions, reduced vulnerability to peak oil, an improved health environment, and the mitigation of traffic congestion, accidents and other pollution.

The draft plan should create a transit orientation for the whole community, not only for specific commercial-residential zones. The intensity of public transport usage will increase dramatically if the geographical coverage, spread through the day and night, frequency and running times of the service are radically improved, especially when these reach the point where they can provide the day-to-day travel needs of the majority of the urban population.

The linear development of Cairns, along a coastal plain to the north and a river valley to the south is particularly advantageous to the use of public transport.

At least 40 per cent of Cairns trips should be by public transport by 2025. However, the public transport system should be constructed to take up to 60-70 per cent of trips. This will maximise the potential gains from its establishment and protect our region from rising oil prices.

Firm targets must be adopted, with proper monitoring and reporting regimes put in place to ensure that progress is on track, targets are met, and any problem areas are identified.

**5.3 Fixed rail as the “spine” of public transport, “fed” by bus services which also provide the suburban network.**

Only fixed rail systems can carry CAST’s proposed 40-70 per cent intensity of public transport usage. We suggest that dual-mode rail, as exemplified by the “Karlsruhe Model” (see attached “Dual-mode rail”), is optimal, given FNQ’s combination of urban concentration and regional outlook, existing rail infrastructure and the anticipated population of more than 220,000 in the Cairns Regional Council by the end of the planning period. A fixed rail system also best provides for interaction with active transport because of its better capacity to carry bicycles and mobility assistance equipment.

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<sup>1</sup> This submission supports the submission of the Cairns Bicycle Users’ Group with regard to active transport proposals.

The plan should also outline public rail and/or bus services between all regional townships and centres in the whole of the FNQ 2025 plan region supported by local regular and at-call shuttle bus services.

#### **5.4 New developments to provide for active and public transport**

Developers of new subdivisions should be required to provide no-car areas and plazas, to design for and encourage active transport and to provide effective public transport infrastructure.

#### **5.5 Rail freight between regional centres.**

Significant freight movement in the region includes agricultural products from the coastal plain and Tablelands, and cattle and minerals from further north and west, to local ports and continue southwards out of the region, and goods into the region, as well as construction materials into Cairns and waste out of the city. Recent Federal Government figures reveal carbon emissions from the freight transport sector in Australia are set to increase by 100 per cent by 2020 (*ABC news, 14th July 2008, available at: <http://www.abc.net.au/news/stories/2008/07/14/2302486.htm>*). Rail is much more energy efficient for freight transport and allows for future electrification (rubber tyres create seven times as much friction as train wheels).

Using a rail tunnel as the primary means for freight transport from the Tablelands would eliminate the need for a full four-lane Kuranda Range road, would reduce heavy vehicle transport through Cairns and other towns and ensure affordable future transport despite peak oil.

#### **5.6 Inter-regional domestic passenger travel principally by Very Fast Train.**

Exemplary sustainable transport in FNQ will contribute to the sustainability of the Great Barrier Reef, wet tropical rainforests and other environmental attractions of the region and access to these. Yet the use of jet aircraft for inter-regional and international travel for tourism, business purposes and family reasons to and from Cairns produces very significant amounts of the greenhouse gas emissions, which threaten those attractions through their contribution to climate change, and is also encountering massive cost increases. Aircraft fuel accounts for over one third of our regions transport related greenhouse gas emissions. (*“Greenhouse Gas Emissions in the Wet Tropics Region: A Preliminary Inventory” WTMA report 2007*)

Freight, car and domestic air travel can be substantially replaced by VFT operating at top-speeds above 250km/h between Cairns and at least all major cities in eastern Australia. A VFT rail network powered by renewable energy would help Australia to significantly reduce greenhouse gas emissions, protects our economy from inevitable oil shortages, is energy efficient and clean, and CAST asks for it to be established as a matter of urgency.

## **6. Developing a Sustainable Transport System in FNQ**

CAST suggests that the following timeframes and actions be included into the 2025 plan:

### **6.1 Short Term (immediate)**

- Establish dedicated bus lanes for all bus routes on all roads of three or more lanes, as well as any two lane roads where buses are slowed down by rush-hour gridlock. These should be restricted to buses or vehicles carrying 3-4 or more passengers.
- Where available road width is an issue, add one dedicated bus-lane to alternating streets, eg a southbound bus-lane in Sheridan street and a northbound bus-lane in McLeod Street.
- Fit buses with bike carrying facilities to encourage active transport.
- Install timetables and bus route maps at all bus stops.
- Start introducing electric and other non-oil based buses.
- Shields Street to become a pedestrian zone from Cairns Central to the Esplanade  
The Esplanade from Spence Street to Florence Street to be closed to vehicles (except service vehicles for restricted periods of time).
- Install bike parking and provide showers and change rooms in major shopping precincts including the Cairns CBD.
- Complete the Cairns bike network as outlined by CBUG in their submission.
- Widen major bike lanes to provide for bicycles as well as electric bikes and scooters, including overtaking inside that lane.

- Use of existing rail infrastructure to run trains at least during rush-hour from Gordonvale to Redlynch. Allow carriage of bikes and electric bikes and rollers to integrate active and public transport.
- Introduction of suburban shuttle buses to connect with major bus routes and trains. These shuttle buses to be booked by phone, SMS and similar technologies, and be flexible in their routing.
- Provide wildlife underpasses in the main wildlife corridors and several extra overtaking lanes on the Kuranda Range Road (see attached *Limited Range Road Upgrade proposal*).
- Provide public bus or train transport between townships in regional areas supported by flexible and on-demand local shuttle buses.
- Identify and protect all existing and potential regional rail and road corridors
- Introduction of a daily commuter public bus service between Yarrabah and Gordonvale, in consultation with Yarrabah Community Council.

## **6.2 Medium Term (completion in 5-10 years)**

- Construct a second track and operate dual-mode rail service (see attached *Dual-mode' rail*) from Gordonvale to Redlynch, extended by less frequent services to Innisfail and potentially, Kuranda. Infrastructure requirements would be duplication of the existing rail line between Gordonvale and Woree, line construction between Woree and Cairns Railway Station through Earlville and the Spence Street transit corridor, and duplication of the existing rail line between Cairns Railway Station and Redlynch.
- Construct and operate dual-mode rail service from Edmonton (extending to Mt Peter) to Palm Cove. This should follow the transit corridor offered by cane train lines between Edmonton and Redlynch, with cane rails replaced with triple gauge to allow continuing cane train operation on this corridor, but subsequently parallel the Brinsmead-Kamerunga Road and Captain Cook Highway to better service Kamerunga, Caravonica, Smithfield and James Cook University.
- Some sections of the rail corridor might benefit from fitting the rails into bitumen to allow the corridor to be used by buses as well as trains.



- Reorganise bus services as sub-urban adjuncts to dual-mode rail, including movement to the hospital and airport. Dedicated bus lanes for all bus routes on all roads of three or more lanes, as well as any two lane roads where buses are unduly slowed down by other traffic.
- Provide real-time information at bus stops using Intelligent Transport System as outlined in the CIPTP.
- Establish dual-mode rail and bus interchanges at, for example, Mount Sheridan, Earlville, Aeroglen or Airport Ave, Redlynch and Smithfield.
- Provide bike parking and shower and change facilities in all shopping centres and precincts, suburban centres, industrial areas and other strategic locations including regional centres.
- Widen all bike lanes to provide for bikes as well as electric bikes and scooters
- Extend pedestrian and no-car areas in CBD and initiate such areas in suburban and beach precincts.
- Construct high-speed (>100km/h) rail access from just south of Cairns to Mareeba through a tunnel, featuring regenerative braking and drive on/off facilities for all freight and passenger vehicles in Mareeba, Whiterock and Cairns (see attached *Southern Rail Tunnel proposal*). This will allow for 30-40 minute commuting between Mareeba and Cairns.

### **6.3 Long Term (over 10 years)**

- Extend pedestrian precincts, bike facilities and bus services in the development of transit-oriented communities throughout the whole region.
- Retrofit and re-design existing suburbs and townships to facilitate active and public transport.
- Establish sustainable transport precincts (open only to electric vehicles and other renewable and non-polluting modes of transport).
- Re-establish rail from Mareeba southwards into Tablelands, potentially to meet planned Charters Towers railhead.
- Extend the high-speed train and associated drive on/off infrastructure from Whiterock to Innisfail, Mourilyan Harbour and further south. CAST suggests such a system all along the east coast and to Adelaide, later to be extended to other areas. Powered by renewable energy, this will significantly reduce Australia's dependence on fossil fuels and provide affordable public

and freight transport into the future. It will also make a significant contribution to reducing Australia's greenhouse gas emissions.

## **7. Implementation principles, procedures and funding**

The draft *FNQ 2025* plan for the most part does not propose times for the introduction of its transport related measures. This is consistent with the 2005 Cairns Integrated Transport Plan, which requires the prior existence of demand for public transport for its provision.

Yet demand for public transport cannot be fully expressed unless the service has been provided. Thus, public transport planning on the basis of prior demand will never meet the actual need for public transport. Indeed, it will suppress the demand for public transport. The principal position of individualised motor vehicles in passenger travel would therefore be maintained indefinitely under the draft plan. *FNQ 2025* should take the approach that the provision of public transport services will realise the demand that already exists for them. CAST suggests that reliable, fast and convenient public transport servicing the whole of Cairns and *FNQ* region is urgently required to facilitate and encourage the required change towards sustainable transport.

CAST notes, moreover, that the greatest benefits of public transport and rail freight cannot be realised until these are the region's principal transport modes. The introduction of sustainable transport will, therefore, be aided by the following: legislative action (for example, greenhouse gas emission targets, their monitoring and related planning requirements should be incorporated into the *Regulatory Provisions* which are to be adopted together with *FNQ 2025*); sustained governmental support; public education and marketing; community accountability and governance involving all stakeholders; the protection and enhancement of working conditions in the public transport industry; and government financial support and appropriate additional training for anyone affected by job losses in automotive and road freight industries. Cast believes that the outlined changes will create many new jobs.

This submission proposes public transport be provided, at least in the urban area, as a universal service, the use of which is to be encouraged and maximised. For this reason, public transport should be provided as a public service, not by a corporate monopoly, nor through competing companies whose profits are then subsidised from the public purse. Moreover, consideration should be given to making the service free to use. In this regard, CAST notes the costs related to fare collection and policing and the improvements in service running times that may be achieved by elimination of fare collection.

Investment in sustainable transport is, in any case, an efficient use of the community's resources. Reliance on road transport for passenger and freight movement is costly in land use, construction and vehicle maintenance and running, and in its environmental and health effects. Use of renewable energy sources for transport will reduce the cost the community will otherwise incur due to peak oil, while contributing to halting climate change and creating new jobs. Active transport contributes to improved health and well-being in the population. As well, comprehensive mass transit, while involving substantial social expenditure, should reduce costs faced by households when they can reduce the number of vehicles they maintain and run, and would also prove a valuable attractant for tourists to FNQ.

*This document was submitted including over 150 signatures by residents of the Cairns region.*

*For more information about CAST, please visit our website: <http://www.takesteps.org/cast/>*