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Submission: Bundaberg Integrated Transport Strategy

This submission is jointly presented by Bundaberg CANEGROWERS and Bundaberg Sugar on behalf of the Bundaberg Sugar Industry. Bundaberg CANEGROWERS represents members who manage integrated multispecies farms, growing sugarcane and other crops. Bundaberg Sugar is the largest sugarcane grower, miller, and macadamia grower and processor in the region.

This submission focuses on:

- Enhancing the freight transport network vital for moving crops from farms to markets
- Addressing the impact of active transport networks between Bundaberg and Bargara on landowners
- Improving flood resilience
- Ensuring compliance with road rules for agricultural vehicles

2.1.6 Freight Transport Network

If this strategy aims to reduce heavy freight vehicle trips on the road network, significant collaboration is required among Bundaberg Regional Council, Transport and Main Roads, and the National Heavy Vehicle Regulator (NHVR). This involves upgrading roads to accommodate heavier trucks and expanding access for larger vehicles, such as 2-trailer Road Trains, 23m and 29m B-Doubles, and Performance-Based Standards (PBS) vehicles. By promoting NHVR's PBS Scheme, certain B-Double vehicles could operate on the standard road network, increasing overall efficiency.

From the perspective of the sugar industry, these upgrades would provide access to routes where it would be feasible to allow trucks to carry four rail bins per trip. At this point in time one B-double cane bin trailer has been developed and trials at this stage have not been very successful. However, in saying that this is a twenty-year strategy and road transport technology will change over this period. If successful, this would provide a 33% efficiency improvement compared to the current three-bin trailers.

The fragmentation of the sugar industry, driven by growers switching to other crops or selling land to investment companies for tree crops, has reduced the efficiency of the existing rail network. The cane supply to Bundaberg Sugar mills has dropped from 3.8 million tonnes in 1999 to approximately 1.2 million tonnes in 2024. This decline contributed to the closures of two northside mills: Fairymead in 2005 and Bingera in 2020.

With no cane rail bridge network and the loss of the cane rail ferry in the 2013 floods, all northside cane must now be transported by road to Millaquin Mill. As of 2024, 55% of this

cane was moved using multilift or roll-on/roll-off cane rail bins from the northside to Millaquin Mill.

Although Bundaberg Sugar received approval to construct a bridge at the former cane rail ferry crossing point, complications with Bundaberg Regional Council, Transport and Main Roads, and other government departments prevented its connection to the existing rail network. As the cost for construction escalated and without financial assistance from the Federal or State governments, the project became financially unviable. Consequently, Bundaberg Sugar has abandoned the bridge plan and relies exclusively on the road network for cane transport to the mill.

3.2 Revitalisation of the Bundaberg CBD

The proposed upgrade of Quay Street to reduce traffic, particularly heavy vehicles, will significantly affect the transport of sugarcane to Millaquin Mill unless an alternative crossing of the Burnett River is provided.

Currently, transporting roll-on/roll-off cane rail bins from 124 River Road, Fairymead, to 52 Jealous Road, Kalkie, involves a 13 km trip along Quay Street that takes approximately 14 minutes by car, according to the NRA trip planner. If Quay Street is avoided and Walker Street is used instead, the route increases to 17 km, takes an additional 4 minutes by car, and passes through four school zones:

1. North State Primary School (signed crossing)
2. West State Primary School (traffic lights)
3. St Patrick's Catholic Primary School (flagged crossing on Walker Street)
4. East State Primary School (signed crossing)

For trucks, the travel times and disruptions are even greater. A study undertaken by Smith Global in 2024 hypothesised that to maintain adequate supply of cane to Millaquin Mill under proposed conditions it would require additional truck movements. The review undertaken postulated that to maintain the current tonnage being hauled to the mill via Quay Street there would need to be an additional 30% in the number of trucks on the road. If forced to use Walker Street to the mill via the Ring Road, there would be negative economic impacts not only to the industry but for the community at large. These additional movements onto an already congested corridor would increase carbon emissions, increase road safety concerns and generally have a negative impact on the wellbeing of the community.

The route from the north side of the Burnett River to the mill via Walker Street to the mill would pass through 9 signalled intersections, 4 school zones, and cross a QR rail line. Maintaining an adequate supply of cane to Millaquin Mill under these conditions would require additional truck movements, increasing road network usage and raising safety concerns for schoolchildren in these areas.

If trucks were to avoid both Quay Street and Que Hee Street by using the Ring Road, the cycle time would take 80 minutes and even longer during school hours, further delaying cane deliveries to the mill. The current cycle time is 55 minutes. During the Bundaberg Sugar crush season, one truck currently passes along Quay Street every 8 minutes, 24 hours a day.

Multilift trucks, which also transport cane, rely on Quay Street regardless of which bridge they use to cross the Burnett River, as it offers the fastest access to Millaquin Mill. Closing Quay Street to heavy vehicles would force these trucks onto Walker Street, where approximately one multilift truck would pass every 12 minutes, increasing traffic and safety risks in residential and school zones.

3.4 Port of Bundaberg

The Port of Bundaberg and the State Development Area (SDA) should be considered a unified precinct, even though the SDA spans both sides of the Burnett River. Currently, sugar dominates operations at the Port, with B-double trucks delivering from Isis Central Sugar Mill and semi-trailers transporting from Millaquin Mill. Upgrading to 2-trailer road trains would improve transport efficiency to and from the mills, as increased payloads reduce the overall number of road trips required.

As the Port continues to grow, the transportation of materials such as sand, wood pellets, and gypsum will expand. This growth necessitates improved transport solutions to handle heavy freight effectively while minimizing conflicts between light and heavy vehicles on the road network.

If a bridge is planned to connect the northern and southern sections of the SDA and the existing Port, it should be designed as a multimodal bridge. Such a bridge should accommodate heavy transport vehicles, including road trains, rail infrastructure, and cane rail, ensuring maximum efficiency and integration across transport modes.

5.2.2 Identify and prioritise planning for a Coastal Active Transport (AT) Connection

Careful consideration is required as Port Road, Bargara Road, and Elliott Heads Road are all State-controlled roads, while only Windermere Road falls under the jurisdiction of the Bundaberg Regional Council (BRC). The primary challenge in establishing a separate Active Transport (AT) zone for these roads is the limited width of the road reserves. Much of the space not occupied by the bitumen is taken up by steep, narrow drains designed to manage stormwater runoff.

Port Road faces the added challenge of accommodating B-double trucks. Any increase in vehicle size to improve transport efficiency would further complicate the inclusion of a designated AT zone within the limited road reserve. Additionally, the area outside the drains is often used by agricultural vehicles moving between properties. Introducing AT vehicles into this mix would likely create additional safety and operational issues.

Bargara Road is extremely narrow, with deep drains occupying much of the existing road reserve. Many property access points along the road rely on pipework to create driveways, further limiting available space. Although agricultural vehicles can use the road, most operators avoid it due to the lack of safe pull-off areas where they can let other vehicles pass in compliance with road rules.

Windermere Road shares many of the same constraints as Bargara Road but experiences higher levels of agricultural traffic, as well as road transport and vehicles towing trailers - particularly

between Hummock Road and Seaview Road. These factors increase the complexity of incorporating a separate AT zone.

Elliott Heads Road offers slightly more flexibility, with some wider sections and flat areas where agricultural vehicles can pull off the road. However, it lacks convenient access to coastal communities, and increasing residential development in Coral Cove and Elliott Heads is expected to raise traffic volumes making a stand-alone AT zone difficult to manage. Additionally, this road has a higher rate of vehicle accidents compared to the others, posing significant safety risks for AT users.

5.3.1 Implement Road Network Changes for the New Hospital

We fully support the installation of traffic lights at the intersection of the Ring Road and Kay McDuff Drive, along with a reduction in the speed limit to 80 km/h until vehicles are west of Kay McDuff Drive. This intersection experiences significant traffic congestion during school zone times, particularly due to parents traveling from areas south of Elliott Heads Road.

The reduced speed limit and traffic lights would also enhance safety for 2-trailer road trains using the Ring Road to transport goods toward the Port Precinct. This route is critical for freight originating from the western parts of the Bundaberg Regional Council area as well as the North and South Burnett Council areas. The need for these upgrades will become even more important if mineral resources in these regions are developed.

5.4.1 Emerging Community Plans

This issue is likely to be the greatest source of conflict within this plan as emerging communities develop while neighbouring properties remain farmland for the foreseeable future. These areas, currently used for agriculture, will eventually transition into residential housing lots. New developments come with high expectations for infrastructure, including public transport, roadways, separate walkways, active transport paths, access to green spaces, parklands, and retail areas.

At the same time, neighbouring properties may still be operating farms that rely on heavy agricultural vehicles using the road network and any existing cane rail infrastructure to transport produce to market. Without proper planning, the mix of transport types - ranging from e-scooters and pedestrian traffic to large harvesting equipment - will likely lead to frequent near misses and potential fatalities. Even with effective planning, some incidents may still occur if road users fail to adhere to sensible speed limits or safety guidelines.

While this conflict will diminish once the entire area is fully developed, the same challenges will arise in the next emerging community area, requiring continuous attention and proactive planning.

5.4.2 Future Capacity improvements

We support the proposed capacity improvements along Bundaberg Gin Gin Road, particularly between Moore Park Road and Hinkler Avenue. These upgrades will enhance traffic flow for cane trucks, reduce trip times, and improve the efficiency of transport and milling operations.

Further capacity improvements may also be required along Bundaberg Gin Gin Road between Rosedale Road and Moore Park Road before the end of this plan. This need arises from the anticipated growth of residential and rural residential developments around Sharon.

We also endorse extending the proposed capacity upgrades for Walker Street to include both Walker Street and FE Walker Street, covering the section between Takalvan Street and Bundaberg Ring Road intersections. This extension is necessary to accommodate cane trucks, which will likely use Walker Street to access Millaquin Mill if heavy vehicles are rerouted away from Quay Street. The increased number and distance travelled by the trucks will require a higher capacity road network than currently available.

Additionally, capacity improvements are needed for Barolin Street from Beatrice Street to George Street. Two existing bridges and the single-lane sections between Walker Street and George Street currently restrict traffic flow. Vehicles merging from two lanes into one and turning off to businesses in this area cause speeds to drop significantly, often to 20 km/h.

5.4.4 Access to Elliott Heads

As the communities of Elliott Heads and Coral Cove continue to grow, traffic volumes along roads leading to Bundaberg are expected to increase. Current routes such as Zinks Road and Back Springfield Road, which connect to Lovers Walk, will experience additional pressure. These roads, primarily rural in nature, already handle high levels of agricultural vehicle traffic, creating potential safety and capacity challenges.

For vehicles accessing the eastern side of Bundaberg or the northern coastal areas, Back Windermere Road is a preferred route. However, this road will require significant upgrades to accommodate the increasing traffic demand.

5.5.1 Moore Park Beach Flood Evacuation Route

Significant road upgrades are necessary if Booyan Road is designated as the evacuation route for Moore Park Beach. The area contains several low-lying bridges and causeways that are prone to flooding, reducing the effectiveness of this route during an emergency.

Moore Park Beach is a low-lying community, with some areas only 2 meters above mean sea level. Raising road heights to facilitate evacuation could worsen flooding in nearby agricultural areas, negatively impacting the viability of local farms. For example, increasing the height of Murdochs Linking Road would exacerbate flooding of farmland bounded by Murdochs Linking Road, Moore Park Road, Murdochs Road, and Lindemans Road. After the 2013 floods, the elevation of Murdochs Linking Road led to increased flooding in these areas during severe local rainfall in October 2017.

Additionally, even if evacuees can reach Booyan Road, further challenges arise. The unnamed watercourse locally known as Boggy Creek on Moorland Road near Stewarts Road and Booyan Road at Croome Creek would likely be blocked during floods. While evacuees might reach temporary safety, they would lack shelter, food, and access to safe onward travel.

Comprehensive planning is needed to establish a viable flood evacuation route from Moore Park Beach, ensuring both accessibility and safety during extreme weather events.

5.5.3 Bundaberg City River Crossings

While the study determined there is currently no need for additional road bridges over the Burnett River, several actions outlined in the Bundaberg Integrated Transport Strategy will significantly impact traffic flow across the existing bridges.

Key Considerations:

1. As part of the CBD revitalization project, heavy vehicles, including cane rail bin trucks and some multilift trucks, will no longer be permitted to use Quay Street. This change will force these vehicles to reroute via the Tallon Bridge, increasing travel times and exposing them to additional school zones, raising safety concerns as well as a requirement for additional tracks.
2. If the flood evacuation route for North Bundaberg includes upgrades to access the Tallon Bridge, all other traffic will be redirected to the Bundaberg Traffic Bridge. However, this bridge has a 42.5-tonne GVM weight limit, which prevents its use by B-double trucks. Additionally, routing heavy vehicles through CBD roads presents further challenges for traffic flow and safety.
3. Even though a new bridge may not be needed for another 10 to 30 years, proactive planning is essential. Several ideal sites on the southside have already been developed into housing, reducing options for connecting Sharon/Burnett Downs to Branyan. A bridge in this area would:
 - Decrease traffic volume in the town centre by providing a direct route for vehicles traveling west to Johanna Boulevard, a hub for new commercial and retail developments.
 - Improve flood evacuation routes for North Bundaberg residents, depending on the bridge's height and placement within the surrounding landscape.
 - Provide heavy vehicle access to the Port and Millaquin Mill via the western end of the Ring Road, depending on the exact location.
 - Offer better connectivity to the new hospital site by reducing travel times between Bundaberg North, Kensington, and the hospital.

A bridge west of the city would significantly enhance connectivity and resilience, supporting future growth and addressing long-term transport needs.

5.5.4 Safety

This issue primarily concerns Transport and Main Roads (TMR) and state-controlled roads but is also relevant for all roads outside the coastal satellite towns. The Bundaberg Regional Council area derives over 13% of its GDP from agriculture, significantly higher than the statewide average of 3.5%. Consequently, the region experiences a higher proportion of heavy vehicles and agricultural machinery on its road network compared to many other areas.

Slow-moving agricultural vehicles are required to pull over to the left to allow banked-up traffic to pass. However, this has become increasingly difficult as road upgrades often reduce the shoulder width or remove pull-over areas entirely. Examples of such challenges include:

- Bundaberg Gin Gin Road (North School to Walters Street traffic lights) - following its elevation to mitigate flooding after the 2013 floods, the road shoulders appeared to narrow, limiting pull-over areas for agricultural vehicles. This issue is particularly evident when slow-moving agricultural vehicles cross the Tallon Bridge and turn west, causing traffic to bank up. Using the nearby service road is not ideal due to the speed vehicles exit onto it, posing a safety risk to stationary or slow-moving agricultural vehicles.
- Rosedale Road (Oakwood School to Marquis Macadamia Plant) - Upgrades to accommodate additional traffic and potential B-double trucks also raised the road's level, reducing the availability of shallow edges. Previously, vehicles could exit the road in many places, but now the shoulders are too steep to safely pull-over and let traffic pass.
- Rosedale Road (Hollands Road to Quinns Road) - This section had steep sided drains on either side of the road and was recently upgraded to provide safe turning lanes into Hollands Road and Quinns Road, and to maintain road integrity the steep sided drains were maintained. Shortly after the upgrades, a visibility issue led to an accident where a car attempting to pull off the road was rear-ended due to the narrow shoulders and steep sides that prevented safe road exits.

To ensure the safety and efficiency of all road users, road design in agricultural regions must address the following:

- Safe Overtaking Areas: Include regular pull-over zones to allow agricultural vehicles to let faster-moving traffic pass
- Accessible Shoulders: Design shoulders with sufficient width and a gentle slope for vehicles to safely exit the road
- Visibility Improvements: Enhance visibility around and through corners, especially in areas frequently used by slow-moving or over-dimensional agricultural vehicles
- Road User Awareness: Encourage awareness campaigns to educate drivers on sharing the road with agricultural vehicles

Incorporating these considerations into future road designs will ensure that the road network remains functional and safe for the region's unique mix of vehicles.

5.6.3 New Private sector river crossing

Bundaberg Sugar no longer intends to fund the design and construction of a new bridge crossing of the Burnett River to reduce truck movements on the road network. As stated earlier, it will require stronger support from Transport and Main Roads (TMR) and the Bundaberg Regional Council (BRC) than it received during the 2015/16 proposal for a bridge at the old ferry crossing site, as well as financial support from State and Federal Governments.

At that time, Bundaberg Sugar had approval to construct the bridge but faced significant challenges obtaining approval to connect it to the existing cane rail network. The barriers arose due to complications and conditions imposed by various stakeholders, including Bundaberg Regional Council, the Department of Transport and Main Roads, the Department of Agriculture and Fisheries, and the Department of Environment and Science. The combination of red tape and environmental restrictions ultimately rendered the project unfeasible, preventing the bridge from linking to the cane rail network and, therefore, failing to achieve the goal of reducing truck movements from the road network.

A feasible alternative would be the construction of a multi-modal bridge at the Bundaberg Port, designed to connect the northern and southern sections of the State Development Area. Such a bridge could accommodate:

- Road Transport: Supporting heavy vehicles such as trucks and road trains
- Rail Transport: Providing a vital link for current and future heavy freight movement
- Cane Rail Systems: Facilitating the efficient transport of sugarcane and reducing truck dependency

This multi-modal approach would not only address current logistical challenges but also future-proof the region's transport infrastructure, supporting both agricultural and industrial growth in the Bundaberg area.

5.7.1 Support freight transport routes in Bundaberg

Bundaberg – Bargara Road Link Planning

Planning for the Bundaberg – Bargara Road link must be carefully considered to accommodate the needs of major businesses such as Bundaberg Sugar, Bundaberg Distilling Company, and potentially Bundaberg Brewed Drinks. These businesses require B Double access along Princess Street and Bargara Road to connect with the Ring Road, Bundaberg Port Road, and FE Walker Street. Road upgrades must address the mixed use of these routes by freight vehicles and increasing commuter traffic, aligning with the future growth anticipated by the Bundaberg Regional Council (BRC).

Bundaberg Gin Gin Road

The section of Bundaberg Gin Gin Road between Moore Park Road and Hinkler Avenue is a critical freight route. It handles:

- Produce from small crop and macadamia packing sheds
- Cane transport from the north side
- General freight deliveries to the Northside Industrial Estate

This freight volume is expected to increase as macadamia trees mature, producing 5–10 kg more per tree annually. Coupled with increasing commuter traffic, the intersection at Hinkler Avenue is likely to face severe congestion, particularly during school zone times.

Walker Street and FE Walker Street

Walker Street, from Water Street to Boundary Street, is a key B Double route connecting the north side to East Bundaberg. The planned closure of Quay Street to heavy vehicles as part of the CBD redevelopment will redirect all cane transport vehicles and mill mud trucks to:

- Takalvan Street
- Walker Street
- FE Walker Street to the Ring Road

To handle this additional traffic:

1. Walker Street (Takalvan to Boundary) and FE Walker Street (Boundary to Ring Road intersection) must be upgraded to two lanes in each direction
2. Bridges over existing drainage channels along these routes must be widened to prevent bottlenecks

The new Bundaberg Aquatic Centre will also add to traffic on Walker Street, particularly during summer and swim carnival events.

FE Walker Street and Bundaberg Ring Road intersection

The closure of Quay Street to heavy vehicles as part of the CBD redevelopment will result in increased truck traffic at the FE Walker Street and Bundaberg Ring Road intersection. This intersection already experiences congestion, with traffic navigating three nearby sets of traffic lights, and becomes particularly busy during school hours due to nearby housing developments and increased school-related traffic.

To accommodate the rise in cane and other truck traffic, upgrades are necessary at the intersection. These should include extending the turning lanes, optimizing the timing of turning signals, and adding a dedicated left turn on-ramp from FE Walker Street to the Ring Road to improve traffic flow and safety. To maximise safety and traffic flow the current 60 km/h signage needs to head south to be past the bridge and current intersection of the Ring Road and FE Walker Street.

McGills Road to Kirbys Road

Repairs must be undertaken to lift the 20-tonne load restriction imposed two years ago, which was initially expected to be resolved within 12 months.

The closure to loaded semi-trailers has left only one viable route to Bagasse Pad 4 at Rubyanna, near the Sewage treatment plant: via Bargara Road, through the school zone at Kalkie, and along Pressler's Road to Rubyanna Road. This situation not only increases transport costs but also significantly heightens safety risks within the school zone which is likely to experience significantly increased traffic at the Ashfield Road and Bargara Road intersection with the proposed developments on Telegraph Road.

Northside Transport Routes

Until a bridge is constructed to remove heavy vehicles transporting sugarcane to Millaquin Mill, there must be multiple transport routes from the north side to the mill. This redundancy will alleviate congestion and ensure operational efficiency for freight movement.

5.7.6 First Mile Last Mile Safety

While this initiative is commendable, it should adopt an "Every Mile Safety" approach to ensure safety across the entire road network. With many drivers holding international or foreign-issued licences, the network must provide consistent safety standards, particularly in regional and rural areas. Drivers in these areas deserve roads that are equal to or superior in safety to those in residential settings.

Rural roads experience a mix of users, including:

- Drivers with varying levels of experience and skill
- Heavy freight vehicles
- Slow-moving agricultural vehicles
- Excess-dimension (wide) agricultural vehicles

To ensure the safety of all road users, roads must be designed with:

1. Good visibility wherever possible
2. Adequate width or designated pull-off areas where visibility is limited, allowing vehicles to safely pass
3. Well-maintained road edges to prevent vehicle or tyre damage and provide safe exit points for vehicles to pull over

An "Every Mile Safety" approach prioritizes the design and maintenance of rural roads to accommodate the unique challenges of diverse users, ensuring safer journeys for all.

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