

# Road and rail supply chain resilience Review

## Summary of risks and impacts on critical KFRs

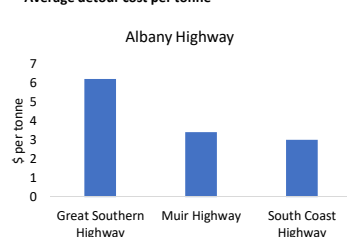
## Albany Highway

The Albany Highway KFR is a 411km freight route located in southwest Western Australia that connects LGAs in Perth to Albany. Cropping transport represents approximately 55% of the total freight task, with critical links from properties to silos and on to ports. Wood product contributes a further 20%, with movements to ports making up a high proportion. The corridor also supports transport movements for fuel and livestock, with a further 15% of the total freight task attributed to these commodity groups. The route provides an important role in providing access to markets for primary produce, with 40% of movements originating at a property and a further 35% originating at a silo. Equally important is its role in providing access to ports, with 50% of movements having a destination at a port.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Great Southern Highway	29,002	27,783	0.17	219	1,219	2.12
Muir Highway	36,344	36,035	0.12	30	309	5.84
South Coast Highway	72,762	72,699	0.22	45	64	0.99

Weekly impact of top commodities

Commodity	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Great Southern Highway						
Wood Product	9,658	97.5%	0.07	14	2.5%	1
Cropping	7,685	88.1%	0.03	17	11.9%	0.24
Livestock	3,140	99.8%	0.03	19	0.2%	0
Muir Highway						
Wood Product	18,087	100.0%	0.07	3	0.0%	-
Cropping	6,191	100.0%	0.02	0	0.0%	-
Livestock	3,270	100.0%	0.01	1	0.0%	-
South Coast Highway						
Wood Product	25,203	100.0%	0.09	3	0.0%	-
Cropping	38,115	100.0%	0.10	2	0.0%	-
Livestock	154	100.0%	0.00	3	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Great Southern Highway	86/88	Denmark(S)	General	100%
Muir Highway	130/131	Denmark(S)	General	100%
South Coast Highway	88/89	Albany(C)	Wood Product	99%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Great Southern Highway	8/88	Plantagenet(S)	General	66%
Muir Highway	1/131	Albany(C)	Vehicles	65%
South Coast Highway	1/89	Albany(C)	Vehicles	19%

Risk Rating

Risk	Great Southern Highway	Muir Highway	South Coast Highway
Cyclones and Storms	0	0	0
Seismicity	2	1	1
Bushfire	0	1	0
Flooding	1	3	2
Extreme Heat	1	1	0.5
Landslide	0	0	0
Total	4	6	3.5

Vulnerability Rating

Great Southern Highway	Very Low
Muir Highway	Very Low
South Coast Highway	Very Low

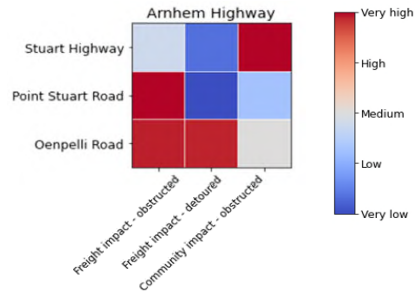
Vulnerability Rating

Albany Highway	Very Low
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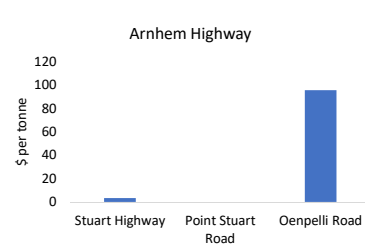
## Arnhem Highway

The Arnhem Highway KFR is a 224km freight route located in the Northern Territory that connects Darwin with LGAs in the northwest. Construction transport represents approximately 55% of the total freight task. The corridor also supports transport movements of processed food and fuel to communities, and cropping and livestock to and from enterprises.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	8/45	WestArnhem(R)	Construction	20%
Point Stuart Road	0/18	0	0	0%
Oenpelli Road	5/10	WestArnhem(R)	Livestock	27%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	41/45	Litchfield(M)	Wood Product	100%
Point Stuart Road	17/18	WestArnhem(R)	Construction	32%
Oenpelli Road	5/10	WestArnhem(R)	Fuel	50%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Stuart Highway	2,405	1,329	0.00	6	1,076	8.60
Point Stuart Road	775	-	-	-	775	0.66
Oenpelli Road	812	15	0.00	352	797	0.44

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Stuart Highway	884	99.6%	0.00	3	0.4%	0
Construction	345	78.2%	0.00	0	21.8%	0.45
Livestock	340	7.1%	0.00	1	92.9%	6
Processed Food						
Point Stuart Road	653	0.0%	-	-	100.0%	0
Construction	122	0.0%	-	-	100.0%	0.52
Livestock	1	0.0%	-	-	100.0%	0.00
Horticulture						
Oenpelli Road	653	0.0%	-	-	100.0%	0
Construction	82	18.9%	0.00	352	81.1%	0.19
Livestock	74	0.0%	-	-	100.0%	0.12
Fuel						

Risk Rating

Risk	Stuart Highway	Point Stuart Road	Oenpelli Road
Cyclones and Storms	3	3	2
Seismicity	1	1	1
Bushfire	1	3	2
Flooding	3	3	0
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	9.5	11.5	6.5

Vulnerability Rating

Stuart Highway	Medium
Point Stuart Road	Very High
Oenpelli Road	High

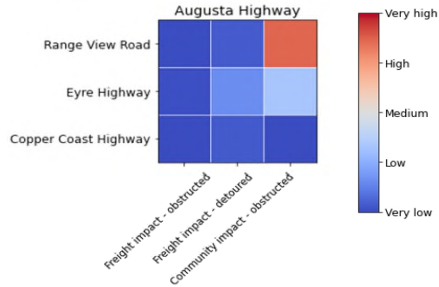
Vulnerability Rating

Arnhem Highway	Very High
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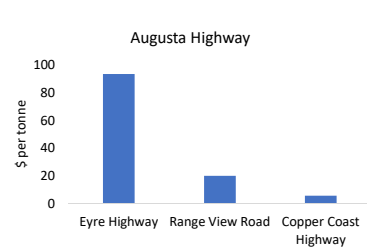
## Augusta Highway

The Augusta Highway KFR is a 223km freight route in southern South Australia. It connects Port Augusta to the Yorke Peninsula along the Spencer Gulf. Cropping transport represents approximately 50% of the total freight task, with critical links from properties to silos and on to ports. Fuel movements contribute a further 15%, with movements from ports to depots and on to service stations. The corridor also supports transport movements of general freight, with a further 10% attributed to movements between distribution centres and retail. The route provides an important role in providing access to markets for primary produce, with 35% of movements originating at a property. Equally important is its role in providing access to ports, with 20% of movements having a destination at a port.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Eyre Highway	64,439	63,978	5.98	7,122	461	0.71
Range View Road	66,066	65,853	1.31	253	213	0.20
Copper Coast Highway	91,069	91,069	0.51	226	-	-

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Eyre Highway	15,559	100.0%	1.18	770	0.0%	-
General	13,254	100.0%	1.61	730	0.0%	-
Fuel	11,592	96.2%	0.91	771	3.8%	1
Range View Road	15,583	100.0%	0.12	111	0.0%	-
Cropping	13,650	100.0%	0.34	60	0.0%	-
General	11,923	100.0%	0.33	23	0.0%	-
Fuel	49,379	100.0%	0.23	10	0.0%	-
Copper Coast Highway	15,381	100.0%	0.09	15	0.0%	-
Cropping	6,168	100.0%	0.06	32	0.0%	-
Fuel						
General						

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Eyre Highway	257/259	CooperPedy(DC)	Processed Food	100%
Range View Road	257/259	CooperPedy(DC)	Processed Food	100%
Copper Coast Highway	184/186	CooperPedy(DC)	Processed Food	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Eyre Highway	6/259	MacDonnell(R)	Fuel	33%
Range View Road	2/259	PortAugusta(C)	Construction	86%
Copper Coast Highway	0/186	0	0	0%

Risk Rating

Risk	Eyre Highway	Range View Road	Copper Coast Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1.5	1.5	1
Landslide	0	0	0
Total	5.5	5.5	5

Vulnerability Rating

Eyre Highway	Very Low
Range View Road	Very Low
Copper Coast Highway	Very Low

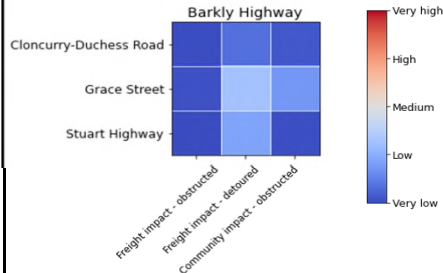
Vulnerability Rating

Augusta Highway	Very Low
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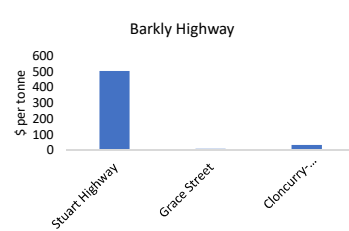
## Barkly Highway

The Barkly Highway KFR is a 764km freight route which extends between Queensland and the Northern Territory. It connects Cloncurry west to the Stuart Highway. Mining transport represents approximately 35% of the total freight task, with links from mines to rail points. Livestock movements contribute a further 22%, with movements primarily between properties. The corridor also supports general freight and fuel transport movements, representing a further 25% of the total freight task. The route provides an important role in providing access for primary produce movements.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Stuart Highway	11,036	10,880	5.47	34,421	156	0.92
Grace Street	22,600	12,519	0.06	156	10,081	40.26
Cloncurry-Duchess Road	14,135	14,018	0.43	2,319	118	0.73

Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Stuart Highway	3,104	95.4%	0.89	2,701	4.6%	1
Livestock	2,516	99.9%	1.17	4,384	0.1%	0.00
General	1,442	99.8%	1.05	3,824	0.2%	0
Horticulture						
Grace Street	9,808	0.0%	-	-	100.0%	40
Mining	4,275	99.6%	0.02	15	0.4%	0.09
Livestock	2,515	100.0%	0.01	14	0.0%	-
General						
Cloncurry-Duchess Road	4,200	97.2%	0.09	159	2.8%	1
Livestock	3,018	100.0%	0.09	154	0.0%	-
General	2,148	100.0%	0.05	254	0.0%	-
Fuel						

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	80/82	HallsCreek(S)	Cropping	100%
Grace Street	97/99	HallsCreek(S)	Cropping	100%
Cloncurry-Duchess Road	99/104	MountIsa(C)	Cropping	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	26/82	Barkly(R)	Horticulture	13%
Grace Street	5/99	MountIsa(C)	Mining	77%
Cloncurry-Duchess Road	34/104	Mildura(RC)	Livestock	8%

Risk Rating

Risk	Stuart Highway	Grace Street	Cloncurry-Duchess Road
Cyclones and Storms	2	0	2
Seismicity	1	0	0
Bushfire	1	1	0
Flooding	3	3	3
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	8.5	5.5	6.5

Vulnerability Rating

Stuart Highway	Very Low
Grace Street	Low
Cloncurry-Duchess Road	Very Low

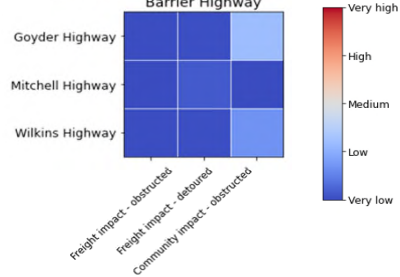
Vulnerability Rating

Barkly Highway	Low
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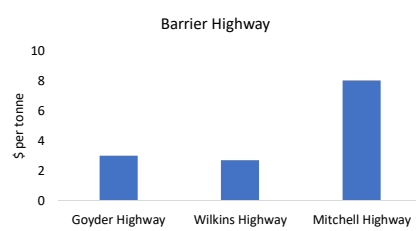
## Barrier Highway

The Barrier Highway KFR is a 1,004km freight route which extends between the Adelaide region to central New South Wales. Cropping transport represents approximately 30% of the total freight task, with critical links from properties to silos. Fuel movements contribute a further 15%, with movements from ports to depots and on to mines. The corridor also supports transport movements of general freight, with a further 18% of the total freight task being movements between distribution centres and retail. The route provides an important role in providing access to markets for primary produce, with 40% of all movements originating at a property. Equally important is its role in providing access to distribution centres, with 25% of movements having a destination at a distribution centre.

Impact Matrix Barrier Highway



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Goyder Highway	179/181	AliceSprings(T)	Cropping	100%
Wilkins Highway	231/233	AliceSprings(T)	Cropping	100%
Mitchell Highway	152/154	Cobar(A)	Horticulture	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Goyder Highway	1/181	Goyder(DC)	General	30%
Wilkins Highway	1/233	Goyder(DC)	Processed Food	17%
Mitchell Highway	2/154	WesternPlainsRegional(A)	Livestock	0%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Goyder Highway	16,761	16,742	0.05	102	19	0.28
Wilkins Highway	27,389	27,367	0.07	26	22	0.13
Mitchell Highway	17,191	17,177	0.14	339	15	0.16

Weekly impact of top commodities

Goyder Highway	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
General	6,989	99.7%	0.01	6	0.3%	0
Cropping	3,080	100.0%	0.01	7	0.0%	-
Livestock	1,748	100.0%	0.01	10	0.0%	-
Wilkins Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
General	9,290	100.0%	0.01	0	0.0%	0
Cropping	5,264	100.0%	0.02	1	0.0%	0.00
Fuel	3,014	100.0%	0.01	2	0.0%	-
Mitchell Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	4,671	100.0%	0.04	29	0.0%	-
General	3,446	100.0%	0.04	14	0.0%	-
Livestock	2,513	99.4%	0.03	43	0.6%	0.16

Risk Rating

Risk	Goyder Highway	Wilkins Highway	Mitchell Highway
Cyclones and Storms	0	0	0
Seismicity	2	2	0
Bushfire	0	0	0
Flooding	3	0	3
Extreme Heat	1	1	1.5
Landslide	0	0	0
Total	6	3	4.5

Vulnerability Rating

Goyder Highway	Very Low
Wilkins Highway	Very Low
Mitchell Highway	Very Low

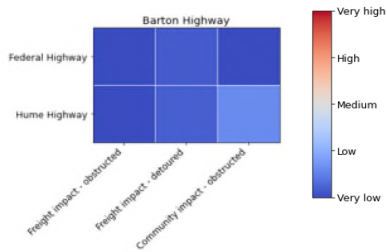
Vulnerability Rating

Barrier Highway	Very Low
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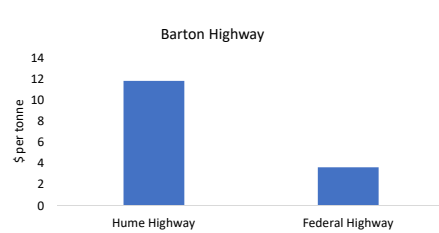
## Barton Highway

The Barton Highway KFR is a 80km freight route located in the Australian Capital Territory. It connects Yass and Canberra. Fuel and general transport represent approximately 60% of the total freight task.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Hume Highway	235,968	235,917	2.79	161	51	0.34
Federal Highway	22,294	22,282	0.08	21	12	0.00

Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Hume Highway	77,573	100.0%	1.33	31	0.0%	0
General	50,749	100.0%	0.48	22	0.0%	-
Fuel	27,939	100.0%	0.25	5	0.0%	-
Wood Product						
Federal Highway	2,930	100.0%	0.02	5	0.0%	-
Fuel	7,227	100.0%	0.02	3	0.0%	-
Construction	3,589	100.0%	0.01	2	0.0%	-
Wood Product						

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Hume Highway	339/341	Hilltops(A)	Horticulture	100%
Federal Highway	108/108	Queanbeyan-PalerangRegional(A)	Cropping	81%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Hume Highway	3/341	YassValley(A)	Horticulture	15%
Federal Highway	1/108	UnincorporatedACT	Waste	0%

Risk Rating

Risk	Hume Highway	Federal Highway
Cyclones and Storms	0	0
Seismicity	2	2
Bushfire	0	0
Flooding	3	3
Extreme Heat	1	1
Landslide	0	0
Total	6	6

Vulnerability Rating

Hume Highway	Very Low
Federal Highway	Very Low

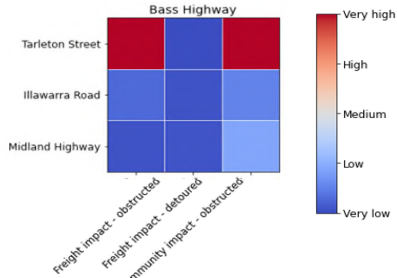
Vulnerability Rating

Barton Highway	Very Low
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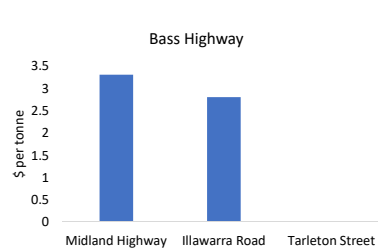
## Bass Highway

The Bass Highway KFR is a 253km freight route located in northern Tasmania. It connects Launceston with LGAs in Marrawah. Wood product transport represents approximately 35% of the total freight task, with critical links from forestries to ports. The corridor also supports transport movements of processed food and horticulture, representing a further 25% of the total freight task. The route provides an important role in providing access to markets for primary produce, with 10% of movements originating at a property and on to markets.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Midland Highway	91/93	Launceston(C)	Vehicles	100%
Illawarra Road	26/104	Glenorchy(C)	Wood Product	100%
Tarleton Street	0/159	0	0	0%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Midland Highway	5/93	MeanderValley(M)	Fuel	22%
Illawarra Road	75/104	Ballarat(C)	Horticulture	13%
Tarleton Street	156/159	Glenorchy(C)	Wood Product	100%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Midland Highway	29,928	29,276	0.10	8	652	0.27
Illawarra Road	48,529	46,016	0.13	25	2,513	10.17
Tarleton Street	45,408	-	-	-	45,408	242.31

Weekly impact of top commodities

	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Midland Highway						
Wood Product	7,608	99.6%	0.02	3	0.4%	0
Construction	6,086	92.4%	0.02	0	7.6%	0.02
Horticulture	4,641	100.0%	0.01	3	0.0%	-
Illawarra Road						
Wood Product	14,523	98.9%	0.04	2	1.1%	0
Construction	7,948	100.0%	0.02	1	0.0%	-
General	6,353	95.8%	0.03	7	4.2%	1.59
Tarleton Street						
Wood Product	13,786	0.0%	-	-	100.0%	24
General	8,323	0.0%	-	-	100.0%	94.01
Horticulture	8,031	0.0%	-	-	100.0%	23.36

Risk Rating

Risk	Midland Highway	Illawarra Road	Tarleton Street
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	0	0	0
Extreme Heat	0.5	0.5	0.5
Landslide	0	0	0
Total	1.5	1.5	1.5

Vulnerability Rating

Midland Highway	Very Low
Illawarra road	Very Low
Tarleton Street	Medium

Vulnerability Rating

Bass Highway	Medium
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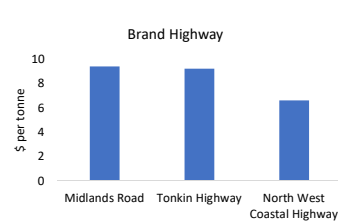
## Brand Highway

The Brand Highway KFR is a 378km freight route located in western Western Australia that connects LGAs between Geraldton and Perth. Mining transport represents approximately 30% of the total freight task, with critical links from mines to ports. Cropping contributes a further 30%, with movements from silos to ports making up a high proportion. Fuel transport movements contribute a further 20% to the total freight task.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Midlands Road	99/99	Carnarvon(S)	Horticulture	100%
Tonkin Highway	97/98	Carnarvon(S)	Horticulture	100%
North West Coastal Highway	79/79	Carnarvon(S)	Horticulture	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Midlands Road	12/99	Irwin(S)	General	100%
Tonkin Highway	7/98	Chittering(S)	Construction	1%
North West Coastal Highway	7/79	SharkBay(S)	Livestock	100%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Midlands Road	21,076	20,980	0.20	494	96	0.92
Tonkin Highway	31,609	31,527	0.29	196	82	0.01
North West Coastal Highway	15,107	15,015	0.10	74	92	0.50

Weekly impact of top commodities

Intersection	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Midlands Road						
Fuel	7,596	100.0%	0.08	60	0.0%	-
Cropping	6,423	100.0%	0.02	18	0.0%	0.00
Mining	2,468	100.0%	0.02	23	0.0%	-
Tonkin Highway						
Mining	10,952	100.0%	0.10	13	0.0%	-
Fuel	7,483	100.0%	0.07	12	0.0%	-
Wood Product	3,331	100.0%	0.03	10	0.0%	-
North West Coastal Highway						
Fuel	6,820	100.0%	0.05	1	0.0%	-
Cropping	2,932	100.0%	0.01	1	0.0%	-
General	1,376	100.0%	0.02	8	0.0%	-

Risk Rating

Risk	Midlands Highway	Tonkin Highway	North West Coastal Highway
Cyclones and Storms	1	0	0
Seismicity	1	1	1
Bushfire	1	0	1
Flooding	2	3	1
Extreme Heat	1.5	1	1.5
Landslide	0	0	0
Total	6.5	5	4.5

Vulnerability Rating

Midlands Road	Very Low
Tonkin Highway	Very Low
North West Coastal Highway	Very Low

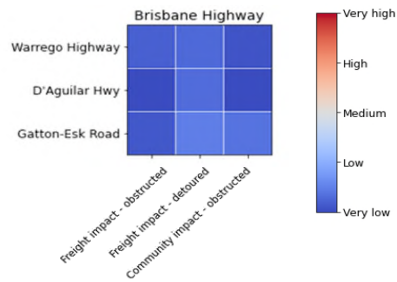
Vulnerability Rating

Brand Highway	Very Low
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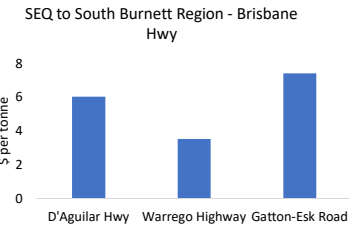
## SEQ to South Burnett Region - Brisbane Valley Hwy

The Brisbane Valley Highway KFR is a 91km freight route located in Queensland. It connects LGAs from Ipswich to the D'Aguilar Highway in the southeast. Livestock transport represents approximately 25% of the total freight task, with movements from properties to abattoirs being a large proportion. Processed food adds 20% to the total freight task, and includes products leaving abattoirs and raw milk collection for dairy processing. Construction contributes 15%, and fuel and wood products add a further 10% each.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
D'Aguilar Hwy	8,352	8,348	0.05	96	4	0.00
Warrego Highway	10,473	10,343	0.04	13	130	0.21
Gatton-Esk Road	9,655	9,445	0.07	166	210	0.76

Weekly impact of top commodities

Commodity	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
D'Aguilar Hwy						
Processed Food	2,008	100.0%	0.01	22	0.0%	-
Wood Product	1,732	100.0%	0.01	3	0.0%	-
Fuel	1,550	100.0%	0.01	27	0.0%	-
Warrego Highway						
Processed Food	2,867	100.0%	0.01	0	0.0%	-
Construction	2,237	100.0%	0.01	2	0.0%	-
Fuel	1,810	92.8%	0.00	5	7.2%	0.21
Gatton-Esk Road						
Processed Food	2,272	100.0%	0.02	27	0.0%	-
Livestock	2,270	100.0%	0.02	36	0.0%	-
Fuel	1,810	100.0%	0.01	18	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
D'Aguilar Hwy	54/55	Byron(A)	Wood Product	100%
Warrego Highway	37/37	Byron(A)	Wood Product	100%
Gatton-Esk Road	67/67	Byron(A)	Wood Product	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
D'Aguilar Hwy	3/55	Somerset(R)	Cropping	0%
Warrego Highway	1/37	Ipswich(C)	Fuel	2%
Gatton-Esk Road	3/67	Toowoomba(R)	Wood Product	9%

Risk Rating

Risk	D'Aguilar Hwy	Warrego Highway	Gatton-Esk Road
Cyclones and Storms	1	1	2
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1	1	1
Landslide	2	2	1
Total	8	8	8

Vulnerability Rating

D'Aguilar Hwy	Low
Warrego Highway	Low
Gatton-Esk Road	Low

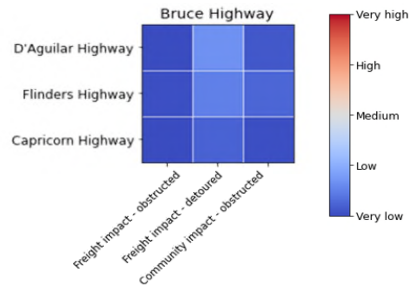
Vulnerability Rating

Brisbane Valley Highway	Low
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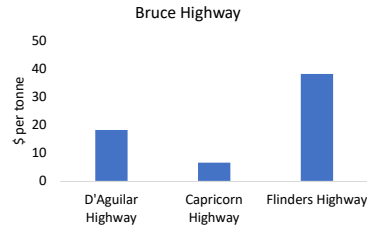
## Bruce Highway

The Bruce Highway KFR is comprised of two sections: the M1, which is a 223 km corridor north of Brisbane connecting the northern end of the Gateway Motorway to Cooroy; and the A1, which is an 1,800 km highway continuing from the M1 to Cairns. The M1 route is a major north-south freight and commuter corridor with connections to the Sunshine Coast and to western freight networks via the D'Aguilar Highway. The A1 has connections to farming and mining regions and regional ports, and major connections to the west via the Capricorn Highway and Flinders Highway.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
D'Aguilar Highway	144,007	143,879	2.62	903	129	0.70
Capricorn Highway	67,945	67,939	0.45	214	6	0.04
Flinders Highway	70,049	69,789	2.66	2,435	260	0.26

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
D'Aguilar Highway						
Fuel	47,326	100.0%	0.82	103	0.0%	-
General	21,511	99.9%	0.53	72	0.1%	0.05
Wood Product	21,465	100.0%	0.40	69	0.0%	-
Capricorn Highway						
Fuel	23,117	100.0%	0.15	18	0.0%	-
Horticulture	10,285	100.0%	0.01	6	0.0%	-
Livestock	6,346	99.9%	0.04	16	0.1%	0.04
Flinders Highway						
Fuel	22,912	100.0%	0.81	243	0.0%	-
Horticulture	12,300	100.0%	0.28	142	0.0%	-
Livestock	3,583	99.0%	0.10	91	1.0%	0.21

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
D'Aguilar Highway	91/91	NorthBurnett(R)	Mining	100%
Capricorn Highway	186/186	Woorabinda(S)	Cropping	100%
Flinders Highway	185/188	McKinlay(S)	General	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
D'Aguilar Highway	2/91	MoretonBay(R)	Horticulture	3%
Capricorn Highway	2/186	Livingstone(S)	Livestock	1%
Flinders Highway	13/188	Townsville(C)	Construction	6%

Risk Rating

Risk	D'Aguilar Highway	Capricorn Highway	Flinders Highway
Cyclones and Storms	2	0	3
Seismicity	1	0	0
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	0.5	1	0.5
Landslide	1	0	0
Total	7.5	4	6.5

Vulnerability Rating

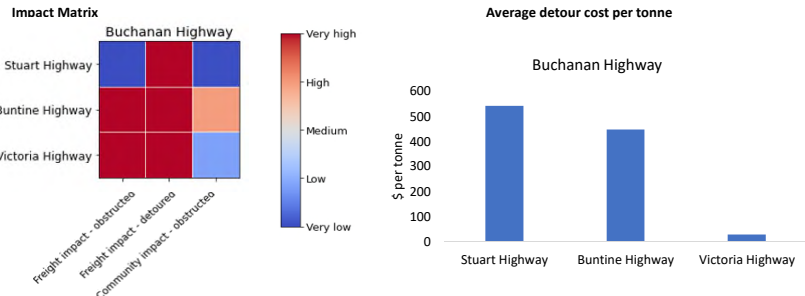
D'Aguilar Highway	Low
Capricorn Highway	Very Low
Flinders Highway	Very Low

Vulnerability Rating

Bruce Highway	Low
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## Buchanan Highway

The Buchanan Highway KFR is a 395km freight route located in the Northern Territory. It connects the Stuart Highway to the Victoria Highway. Livestock transport contributes 60% to the total freight task, with construction the only other significant freight along the route.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	42/42	Darwin(C)	Livestock	17%
Buntine Highway	28/35	VictoriaDaly(R)	Livestock	6%
Victoria Highway	2/10	Wyndham-EastKimberley(S)	Livestock	0%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	1/42	RoperGulf(R)	Livestock	1%
Buntine Highway	28/35	VictoriaDaly(R)	Construction	74%
Victoria Highway	10/10	VictoriaDaly(R)	Construction	21%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Stuart Highway	535	532	0.29	10,572	3	0.02
Buntine Highway	1,014	201	0.09	4,402	814	1.78
Victoria Highway	281	3	0.00	404	278	0.78

### Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Stuart Highway						
Livestock	478	99.4%	0.25	5,054	0.6%	0
Construction	57	100.0%	0.04	5,518	0.0%	-
Buntine Highway						
Construction	540	0.0%	-	-	100.0%	0
Livestock	474	42.4%	0.09	4,402	57.6%	1.64
Victoria Highway						
Construction	154	0.0%	-	-	100.0%	0
Livestock	127	2.4%	0.00	404	97.6%	0.75

### Risk Rating

Risk	Stuart Highway	Buntine Highway	Victoria Highway
Cyclones and Storms	1	1	2
Seismicity	1	1	1
Bushfire	1	0	2
Flooding	0	3	0
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	4.5	6.5	6.5

### Vulnerability Rating

Stuart Highway	Very Low
Buntine Highway	High
Victoria Highway	High

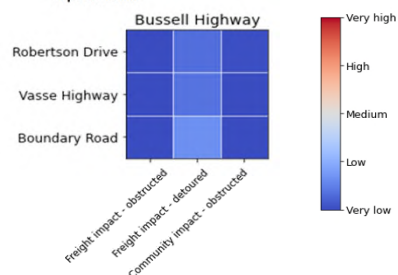
### Vulnerability Rating

Buchanan Highway	High
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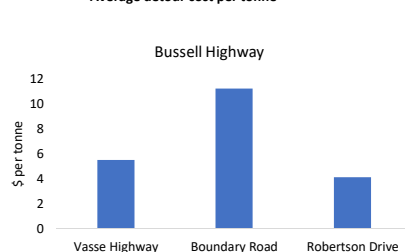
## Busseil Highway

The Busseil Highway KFR is a 178km freight route located in southwest Western Australia connecting Bunbury and Augusta. Wood product transport represents approximately 25% of the total freight task, with critical links from properties to ports. Fuel contributes a further 15% to the total freight task, with movements from depots to service stations making up a high proportion. The corridor also supports transport movements of processed food and cropping, with a further 25% of the total freight task attributed to these commodity groups. The route provides an important role in providing access to markets for primary produce, with 45% of movements originating at a property. Equally important is its role in providing access to ports, with 20% of movements having a destination at a port.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Vasse Highway	67/67	Busselton(C)	Vehicles	100%
Boundary Road	34/34	Augusta-MargaretRiver(S)	General	83%
Robertson Drive	65/65	Busselton(C)	General	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Vasse Highway	1/67	Augusta-MargaretRiver(S)	Livestock	0%
Boundary Road	3/34	Augusta-MargaretRiver(S)	Livestock	0%
Robertson Drive	1/65	Bunbury(C)	Waste	1%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Vasse Highway	10,276	10,274	0.06	105	2	0.02
Boundary Road	3,239	3,237	0.04	390	2	0.02
Robertson Drive	15,036	15,032	0.06	41	4	0.00

Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Vasse Highway	2,455	100.0%	0.01	16	0.0%	-
Fuel	1,846	100.0%	0.01	16	0.0%	-
Processed Food	1,799	100.0%	0.01	9	0.0%	-
Wood Product	997	100.0%	0.01	70	0.0%	-
Boundary Road	601	99.6%	0.01	32	0.4%	0.02
Processed Food	519	100.0%	0.00	34	0.0%	-
Livestock						
Cropping						
Robertson Drive	3,891	100.0%	0.02	5	0.0%	-
Wood Product	2,459	100.0%	0.01	9	0.0%	-
Fuel	2,448	100.0%	0.01	9	0.0%	-
Processed Food						

Risk Rating

Risk	Vasse Highway	Boundary Road	Robertson Drive
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	1	0
Flooding	3	2	1
Extreme Heat	1	0.5	1
Landslide	0	0	0
Total	5	4.5	3

Vulnerability Rating

Vasse Highway	Very Low
Boundary Road	Very Low
Robertson Drive	Very Low

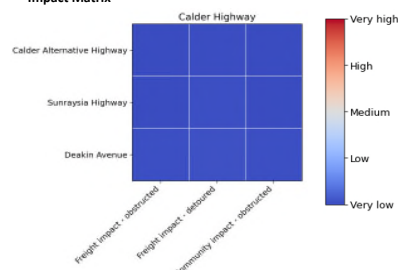
Vulnerability Rating

Busseil Highway	Very Low
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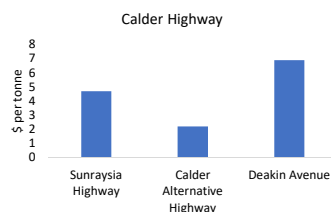
## Calder Highway

The Calder Highway KFR is a 449km freight route located in Victoria. It connects LGAs in northwest Victoria between Mildura and Bendigo. Fuel transport represents approximately 30% of the total freight task, with critical links from ports to depots and on to service stations. Cropping contributes a further 30% to the total freight task, with movements from properties to silos and on to stock feed manufactures making up a high proportion. The corridor also supports transport movements of general freight and horticulture, with a further 25% of the total freight task attributed to these commodity groups.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Sunraysia Highway	27,577	27,562	0.13	14	15	0.00
Calder Alternative Highway	54,300	54,300	0.12	67	-	-
Deakin Avenue	12,755	12,703	0.09	113	53	0.73

Weekly impact of top commodities

Commodity	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Sunraysia Highway						
Fuel	8,818	100.0%	0.04	9	0.0%	-
Cropping	6,899	99.8%	0.03	4	0.2%	0.00
General	5,978	100.0%	0.03	6	0.0%	-
Calder Alternative Highway						
Fuel	15,430	100.0%	0.02	2	0.0%	-
Cropping	13,955	100.0%	0.03	3	0.0%	-
Horticulture	8,586	100.0%	0.02	3	0.0%	-
Deakin Avenue						
General	5,269	99.1%	0.06	15	0.9%	1
Fuel	2,561	100.0%	0.01	2	0.0%	-
Horticulture	2,184	100.0%	0.01	15	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Sunraysia Highway	128/129	Horsham(RC)	Construction	100%
Calder Alternative Highway	130/131	Balranald(A)	Horticulture	100%
Deakin Avenue	86/87	Peterborough(DC)	Cropping	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Sunraysia Highway	1/129	Mildura(RC)	Cropping	0%
Calder Alternative Highway	0/131	0	0	0%
Deakin Avenue	1/87	Mildura(RC)	General	1%

Risk Rating

Risk	Sunraysia Highway	Calder Alternative Highway	Deakin Avenue
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	2	0	3
Extreme Heat	1.5	1	1.5
Landslide	0	0	0
Total	4.5	2	5.5

Vulnerability Rating

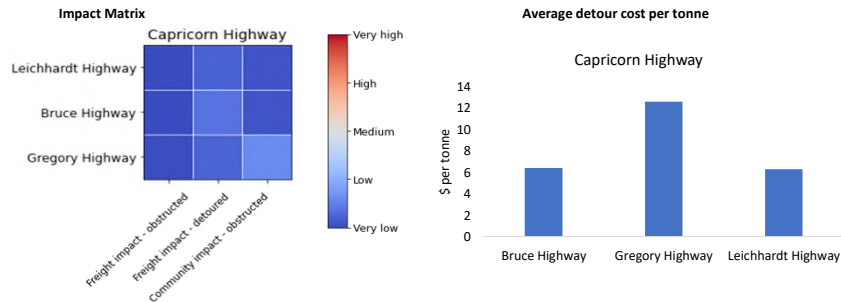
Sunraysia Highway	Very Low
Calder Alternative Highway	Very Low
Deakin Avenue	Very Low

Vulnerability Rating

Calder Highway	Very Low
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## Capricorn Highway

The Capricorn Highway KFR is a 585km freight route located in central Queensland. It connects LGAs from Barcaldine to Rockhampton. Fuel transport represents approximately 35% of the total freight task, with critical links from ports to mines. Livestock contributes a further 20% to the total freight task, with movements between properties and from properties to abattoirs making up a high proportion. Cropping and general freight transport movements contribute a total 30% to the total freight task.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Bruce Highway	91/91	Woorabinda(S)	Cropping	100%
Gregory Highway	134/135	Etheridge(S)	Cropping	100%
Leichhardt Highway	110/110	Barcaldine(R)	Wood Product	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Bruce Highway	4/91	CentralHighlands(R)(Qld)	Construction	2%
Gregory Highway	3/135	CentralHighlands(R)(Qld)	General	15%
Leichhardt Highway	1/110	CentralHighlands(R)(Qld)	Construction	2%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Bruce Highway	24,422	24,408	0.16	106	14	0.06
Gregory Highway	30,260	30,115	0.38	612	146	1.51
Leichhardt Highway	29,009	29,004	0.18	27	5	0.01

### Weekly impact of top commodities

		Detoured			Obstructed	
Bruce Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	15,041	100.0%	0.10	19	0.0%	-
Livestock	4,778	99.8%	0.03	7	0.2%	0.06
Cropping	1,830	100.0%	0.01	8	0.0%	-
Gregory Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	9,500	100.0%	0.11	43	0.0%	-
Livestock	6,548	100.0%	0.07	40	0.0%	-
General	5,654	98.3%	0.09	79	1.7%	1.43
Leichhardt Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	15,432	100.0%	0.09	20	0.0%	-
Livestock	6,937	100.0%	0.05	7	0.0%	0.01
Cropping	3,448	100.0%	0.01	4	0.0%	-

### Risk Rating

Risk	Bruce Highway	Gregory Highway	Leichhardt Highway
Cyclones and Storms	0	0	0
Seismicity	0	0	0
Bushfire	0	0	1
Flooding	3	3	3
Extreme Heat	1	1.5	1
Landslide	0	0	0
Total	4	4.5	5

### Vulnerability Rating

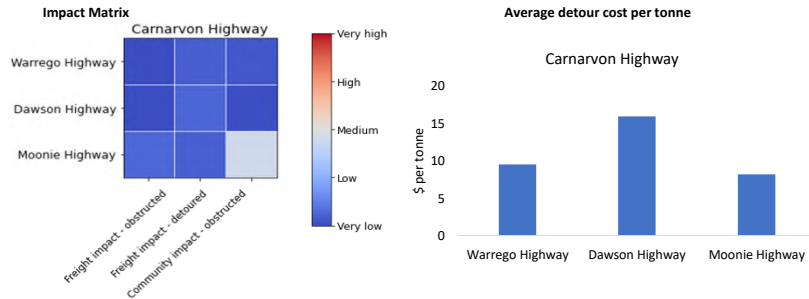
Bruce Highway	Very Low
Gregory Highway	Very Low
Leichhardt Highway	Very Low

### Vulnerability Rating

Capricorn Highway	Very Low
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## Carnarvon Highway

The Carnarvon Highway KFR is a 574km freight and commuter route connecting the New South Wales border in southern Queensland near Mungindi to the Dawson Highway near Rolleston in central Queensland. Cropping transport represents approximately 45% of the total freight task, with critical links from properties to silos. Livestock contributes a further 20%, and fuel contributes a further 15% of the total freight task. The route provides an important role in providing access to markets for primary produce, with 55% of all movements originating at a property. Equally important is its role in providing access to silos, with 30% of movements having a destination at a port.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Warrego Highway	129/129	Etheridge(S)	Cropping	100%
Dawson Highway	119/119	Etheridge(S)	Cropping	100%
Moonie Highway	110/110	Paroo(S)	General	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Warrego Highway	4/129	Maranoa(R)	Waste	3%
Dawson Highway	1/119	CentralHighlands(R)(Qld)	Fuel	1%
Moonie Highway	2/110	Balonne(S)	Fuel	45%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Warrego Highway	27,037	26,889	0.25	421	148	0.30
Dawson Highway	22,205	22,072	0.35	1,165	134	0.23
Moonie Highway	11,512	10,782	0.09	511	730	2.45

### Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Warrego Highway						
Cropping	8,288	100.0%	0.06	34	0.0%	-
General	5,565	100.0%	0.07	78	0.0%	-
Livestock	5,436	99.7%	0.05	31	0.3%	0
Dawson Highway						
Cropping	5,797	100.0%	0.07	101	0.0%	-
General	5,502	100.0%	0.10	162	0.0%	-
Fuel	5,431	97.6%	0.10	64	2.4%	0.21
Moonie Highway						
Fuel	1,059	40.2%	0.00	33	59.8%	1
General	752	87.4%	0.01	43	12.6%	1.42
Construction	385	100.0%	0.00	145	0.0%	-

### Risk Rating

Risk	Warrego Highway	Dawson Highway	Moonie Highway
Cyclones and Storms	0	0	0
Seismicity	0	0	0
Bushfire	0	0	1
Flooding	3	3	3
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	4.5	4.5	5.5

### Vulnerability Rating

Warrego Highway	Very Low
Dawson Highway	Very Low
Moonie Highway	Very Low

### Vulnerability Rating

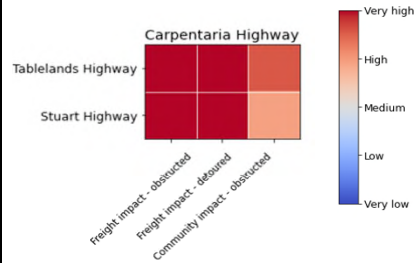
Carnarvon Highway	Very Low
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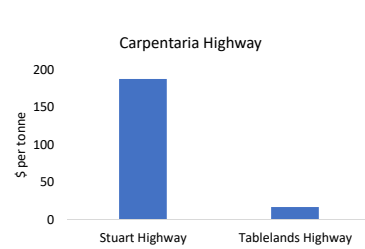
## Carpentaria Highway

The Carpentaria Highway KFR is a 367km freight route located in the Northern Territory. It connects LGAs between the Gulf of Carpentaria to the Stuart Highway. Fuel transport represents approximately 75% of the total freight task, with critical links from ports to depots and mines. Livestock and mining contribute a further 20% to the total freight task.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	10/14	UnincorporatedNT	Mining	15%
Tablelands Highway	28/39	UnincorporatedNT	Mining	15%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	12/14	RoperGulf(R)	Fuel	73%
Tablelands Highway	29/39	RoperGulf(R)	Fuel	89%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Stuart Highway	4,385	962	0.18	4,125	3,424	6.59
Tablelands Highway	6,104	1,112	0.02	492	4,992	8.89
	-	-	-	-	-	-

Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Stuart Highway	3,090	0.0%	-	-	100.0%	5
Fuel	827	100.0%	0.15	2,278	0.0%	-
Mining	376	35.8%	0.03	1,848	64.2%	1
Livestock	4,786	0.0%	-	-	100.0%	8
Tablelands Highway	827	100.0%	0.01	132	0.0%	-
Fuel	439	61.1%	0.01	143	38.9%	1.05
Mining						
Livestock						

Risk Rating

Risk	Stuart Highway	Tablelands Highway
Cyclones and Storms	2	2
Seismicity	0	0
Bushfire	2	1
Flooding	0	0
Extreme Heat	1.5	1.5
Landslide	0	0
Total	5.5	4.5

Vulnerability Rating

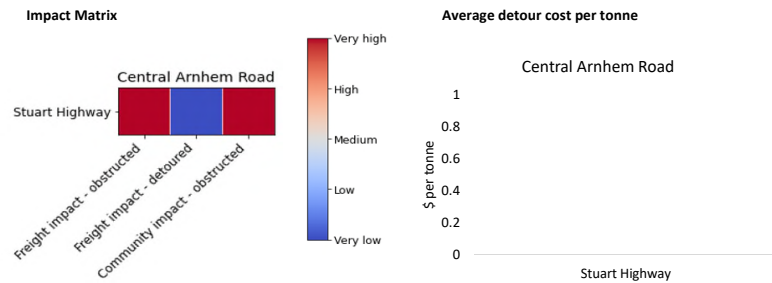
Stuart Highway	Medium
Tablelands Highway	High

Vulnerability Rating

Carpentaria Highway	High
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## Central Arnhem Road

Central Arnhem Road KFR is a 675km freight route located in the Northern Territory. It connects LGAs between the Stuart Highway and Nhulunbuy in the northeast. Construction transport represents approximately 50% of the total freight task, and livestock contributes a further 12%. Processed food and fuel add a further 10%.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	0/16	0	0	0%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	16/16	EastArnhem(R)	General	100%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Stuart Highway	1,511	-	-	-	1,511	4.32

### Weekly impact of top commodities

Stuart Highway	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Construction	910	0.0%	-	-	100.0%	0
Livestock	205	0.0%	-	-	100.0%	0.80
General	103	0.0%	-	-	100.0%	1

### Risk Rating

Risk	Stuart Highway
Cyclones and Storms	2
Seismicity	1
Bushfire	2
Flooding	0
Extreme Heat	1.5
Landslide	0
Total	6.5

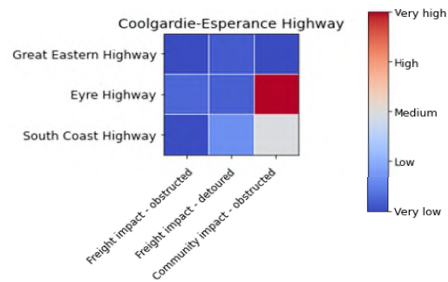
### Vulnerability Rating

Stuart Highway	High
Vulnerability Rating	
Central Arnhem Road	High

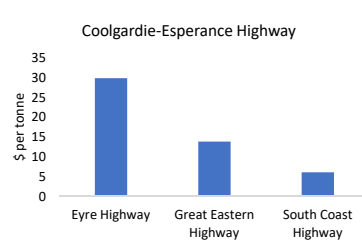
## Coolgardie-Esperance Highway

The Coolgardie-Esperance Highway KFR is a 370km freight route located in Western Australia. It connects LGAs from Coolgardie to Esperance. Cropping transport represents approximately 55% of the total freight task, with critical links from properties to silos and on to ports. Mining contributes a further 15%, and fuel contributes 10%. The route provides an important role in providing access to markets for primary produce, with 40% of all movements originating at a property. Equally important is its role in providing access to silos, with 35% of movements having a destination at a port.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Eyre Highway	49,956	46,575	1.39	851	3,381	4.33
Great Eastern Highway	21,435	21,433	0.30	239	1	0.00
South Coast Highway	76,239	76,045	0.46	179	194	1.60

Weekly impact of top commodities

Commodity	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Eyre Highway						
Mining	14,453	79.4%	0.54	2	20.6%	4
General	11,677	100.0%	0.26	76	0.0%	0.00
Fuel	8,044	95.4%	0.37	320	4.6%	1
Great Eastern Highway						
General	10,412	100.0%	0.19	87	0.0%	-
Horticulture	4,437	100.0%	0.00	18	0.0%	-
Processed Food	2,045	100.0%	0.01	15	0.0%	-
South Coast Highway						
Cropping	53,494	100.0%	0.31	27	0.0%	-
Mining	20,625	100.0%	0.14	25	0.0%	-
Fuel	1,103	88.8%	0.01	21	11.2%	0.20

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Eyre Highway	177/179	Menzies(S)	Fuel	89%
Great Eastern Highway	124/124	Coolgardie(S)	General	95%
South Coast Highway	37/38	Esperance(S)	Wood Product	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Eyre Highway	6/179	Dundas(S)	Livestock	100%
Great Eastern Highway	1/124	Coolgardie(S)	Fuel	0%
South Coast Highway	2/38	Esperance(S)	Vehicles	49%

Risk Rating

Risk	Eyre Highway	Great Eastern Highway	South Coast Highway
Cyclones and Storms	0	0	0
Seismicity	1	2	1
Bushfire	0	0	0
Flooding	0	0	2
Extreme Heat	1	1.5	1
Landslide	0	0	0
Total	2	3.5	4

Vulnerability Rating

Eyre Highway	Very Low
Great Eastern Highway	Very Low
South Coast Highway	Very Low

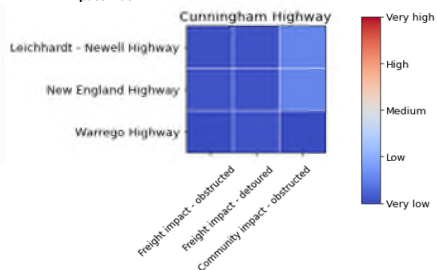
Vulnerability Rating

Coolgardie - Esperance Highway	Very Low
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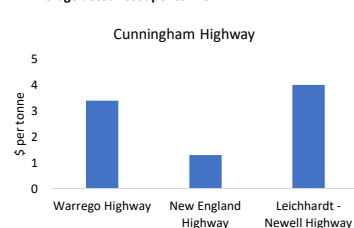
## Cunningham Highway

The Cunningham Highway KFR is a 339km freight route located in south-eastern Queensland. It connects LGAs from Goondiwindi through Warwick to Brisbane. Cropping transport represents approximately 20% of the total freight task, with fuel and general freight each adding a further 15% and livestock, construction and horticulture adding 10% each. The route provides an important role in providing access to markets for primary produce, with 30% of all movements originating at a property. Equally important is its role in providing access to distribution centres, with 25% of movements having a destination at a distribution centre.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Warrego Highway	75,220	75,216	0.25	7	4	0.00
New England Highway	28,463	27,811	0.04	51	652	0.65
Leichhardt - Newell Highway	84,841	84,316	0.33	88	525	0.85

Weekly impact of top commodities

Warrego Highway	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
General	17,887	100.0%	0.08	2	0.0%	-
Fuel	12,437	100.0%	0.04	1	0.0%	-
Construction	10,975	100.0%	0.03	2	0.0%	-
New England Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	10,393	97.5%	0.01	3	2.5%	0
Livestock	4,388	99.9%	0.01	3	0.1%	0.04
Processed Food	3,608	100.0%	0.01	0	0.0%	-
Leichhardt - Newell Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Cropping	27,064	100.0%	0.17	34	0.0%	-
Horticulture	14,711	100.0%	0.06	7	0.0%	-
General	11,344	100.0%	0.07	10	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Warrego Highway	188/190	GlenInnesSevern(A)	General	100%
New England Highway	112/112	GlenInnesSevern(A)	General	100%
Leichhardt - Newell Highway	306/309	Horsham(RC)	Construction	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Warrego Highway	1/190	Ipswich(C)	Waste	0%
New England Highway	6/112	SouthernDowns(R)	Fuel	14%
Leichhardt - Newell Highway	3/309	SouthernDowns(R)	Fuel	14%

Risk Rating

Risk	Warrego Highway	New England Highway	Leichhardt - Newell Highway
Cyclones and Storms	2	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1	1	1.5
Landslide	2	2	0
Total	9	7	5.5

Vulnerability Rating

Warrego Highway	Low
New England Highway	Low
Leichhardt - Newell Highway	Very Low

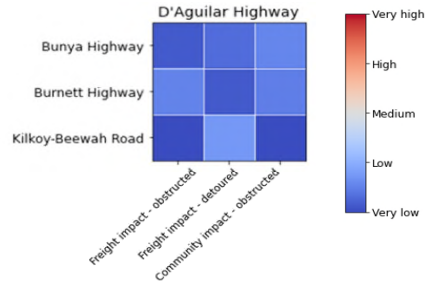
Vulnerability Rating

Cunningham Highway	Low
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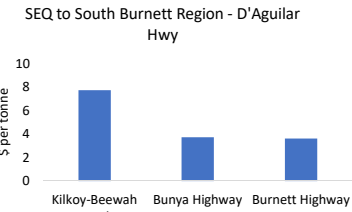
## SEQ to South Burnett Region - D'Aguilar Hwy

The D'Aguilar Highway KFR is a 168km freight route located in Queensland. It connects LGAs from the Bruce Highway at Caboolture to Kingaroy and the Bunya Highway in the southeast. Fuel and wood product transport contribute approximately 25% each to the total freight task. Livestock movements add 20%, with movements from properties to abattoirs being a large proportion. Processed food adds 12% to the total freight task, including products leaving abattoirs and raw milk collection for dairy processing.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Kilkooy-Beewah Road	18,501	18,494	0.14	408	7	0.04
Bunya Highway	10,619	10,536	0.04	9	84	1.19
Burnett Highway	6,541	6,269	0.02	31	272	1.77

Weekly impact of top commodities

Intersection	Total Tonnes (t)	% Detoured	Detoured		% obstructed	Total Value (\$m)
			Total costs (\$m)	Average distance (km)		
Kilkooy-Beewah Road						
Fuel	7,349	100.0%	0.05	39	0.0%	-
Processed Food	3,763	100.0%	0.03	41	0.0%	-
Wood Product	3,663	100.0%	0.03	17	0.0%	-
Bunya Highway						
Fuel	8,393	100.0%	0.03	7	0.0%	-
Cropping	637	100.0%	0.00	6	0.0%	-
Livestock	441	100.0%	0.00	3	0.0%	-
Burnett Highway						
Wood Product	2,809	98.6%	0.01	4	1.4%	0
Livestock	1,018	100.0%	0.00	4	0.0%	-
Fuel	775	83.2%	0.00	3	16.8%	0.21

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Kilkooy-Beewah Road	53/53	SouthBurnett(R)	Fuel	80%
Bunya Highway	34/34	SouthBurnett(R)	Fuel	70%
Burnett Highway	43/43	SouthBurnett(R)	Wood Product	36%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Kilkooy-Beewah Road	3/53	MoretonBay(R)	Livestock	0%
Bunya Highway	1/34	SouthBurnett(R)	Vehicles	14%
Burnett Highway	1/43	SouthBurnett(R)	General	12%

Risk Rating

Risk	Kilkooy-Beewah Road	Bunya Highway	Burnett Highway
Cyclones and Storms	2	2	2
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	0.5	1	1
Landslide	1	1	1
Total	7.5	8	8

Vulnerability Rating

Kilkooy-Beewah Road	Low
Bunya Highway	Low
Burnett Highway	Low

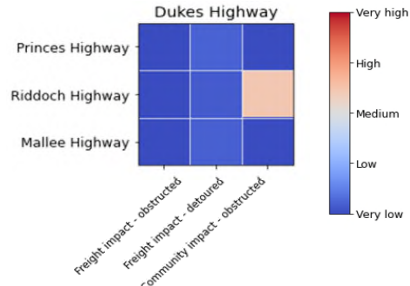
Vulnerability Rating

D'Aguilar Highway	Low
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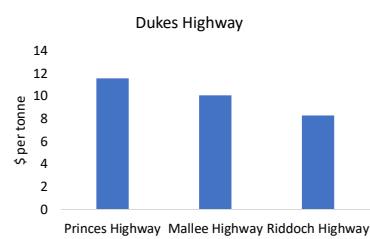
## Dukes Highway

The Dukes Highway KFR is a 195km freight route located in South Australia. It connects LGAs between the Victoria border to Talem Bend in South Australia. Cropping transport represents approximately 25% of the total freight task, with fuel and general freight each adding a further 20%, and livestock adding 10%. The route provides an important role in providing access to markets for primary produce, with 33% of all movements originating at a property. Equally important is its role in providing access to distribution centres, with 20% of movements having a destination at a distribution centre.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Princes Highway	126,008	126,000	1.46	454	8	0.04
Mallee Highway	119,203	119,200	1.20	333	3	0.00
Riddoch Highway	95,739	95,709	0.79	234	30	0.15

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Princes Highway						
Cropping	26,559	100.0%	0.22	39	0.0%	0
General	26,319	100.0%	0.45	56	0.0%	-
Fuel	25,772	100.0%	0.26	55	0.0%	-
Mallee Highway						
General	25,898	100.0%	0.41	51	0.0%	-
Fuel	25,559	100.0%	0.19	48	0.0%	-
Cropping	22,494	100.0%	0.16	31	0.0%	0.00
Riddoch Highway						
General	25,420	100.0%	0.34	41	0.0%	-
Fuel	18,923	100.0%	0.10	25	0.0%	-
Cropping	14,301	100.0%	0.07	20	0.0%	0.00

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Princes Highway	260/263	Light(RegC)	Wood Product	100%
Mallee Highway	261/264	Burnside(C)	Wood Product	100%
Riddoch Highway	217/220	Burnside(C)	Wood Product	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Princes Highway	3/263	TheCoorong(DC)	Livestock	0%
Mallee Highway	1/264	TheCoorong(DC)	Cropping	0%
Riddoch Highway	2/220	TheCoorong(DC)	Wood Product	61%

Risk Rating

Risk	Princes Highway	Mallee Highway	Riddoch Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	0	0	0
Extreme Heat	1	1	1
Landslide	1	1	0
Total	3	3	2

Vulnerability Rating

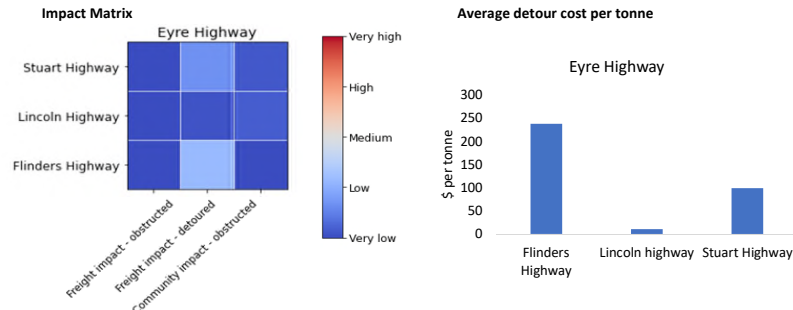
Princes Highway	Very Low
Mallee Highway	Very Low
Riddoch Highway	Very Low

Vulnerability Rating

Dukes Highway	Very Low
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## Eyre Highway

The Eyre Highway KFR is a 1,667km freight route which extends between Western Australia and South Australia. It connects LGAs from Norseman in southern Western Australia to Port Augusta in South Australia. Cropping transport represents approximately 40% of the total freight task, with fuel and general freight each adding a further 15%. The route provides an important role in providing access to markets for primary produce, with 38% of all movements originating at a property. Equally important is its role in providing access to silos, with 30% of movements having a destination at a silo.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Flinders Highway	182/183	Ceduna(DC)	General	100%
Lincoln highway	224/226	Ceduna(DC)	General	100%
Stuart Highway	257/259	CooperPedy(DC)	Processed Food	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Flinders Highway	4/183	Ceduna(DC)	Mining	0%
Lincoln highway	1/226	Whyalla(C)	Waste	4%
Stuart Highway	2/259	PortAugusta(C)	Fuel	3%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Flinders Highway	39,378	39,363	9.38	21,015	14	0.03
Lincoln highway	50,450	50,438	0.54	325	12	0.00
Stuart Highway	65,400	65,293	6.46	7,575	107	0.16

### Weekly impact of top commodities

Intersection	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Flinders Highway	39,378	100.0%	9.38	21,015	0.0%	-
General	11,750	100.0%	2.59	980	0.0%	-
Cropping	10,723	99.9%	3.67	3,304	0.1%	0.00
Horticulture	4,967	100.0%	0.91	970	0.0%	-
Lincoln Highway	50,450	100.0%	0.54	325	0.0%	-
Cropping	15,474	100.0%	0.13	33	0.0%	-
General	12,220	100.0%	0.19	38	0.0%	-
Fuel	5,988	100.0%	0.06	8	0.0%	-
Stuart Highway	65,400	99.2%	6.46	7,575	0.8%	0.16
Cropping	15,575	100.0%	1.27	801	0.0%	-
General	13,254	100.0%	1.75	766	0.0%	-
Fuel	12,470	99.2%	1.07	789	0.8%	0.16

### Risk Rating

Risk	Flinders Highway	Lincoln Highway	Stuart Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	0	3
Extreme Heat	1	1.5	1.5
Landslide	0	0	0
Total	5	2.5	5.5

### Vulnerability Rating

Flinders Highway	Very Low
Lincoln highway	Very Low
Stuart Highway	Very Low

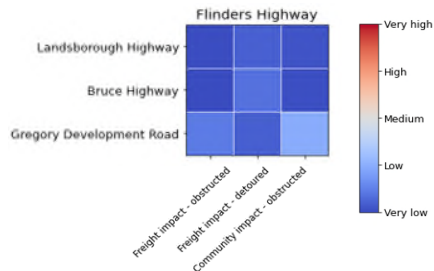
### Vulnerability Rating

Eyre Highway	Very Low
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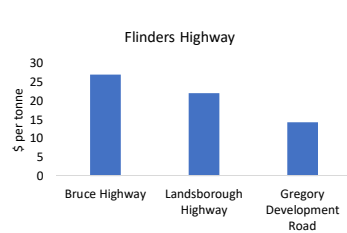
## Flinders Highway

The Flinders Highway KFR is a 783km freight route connecting LGAs in between Cloncurry and Townsville in north Queensland. Fuel and livestock transport represents approximately 45% of the total freight task, with general freight and mining each adding a further 15%. The route provides an important role in providing access to markets for primary produce, with 24% of all movements originating at a property; and an important role in accessing supplies, with 15% originating at a port.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Bruce Highway	33,852	33,815	0.91	1,548	37	0.20
Landsborough Highway	15,932	15,898	0.35	1,447	34	0.20
Gregory Development Road	37,132	36,073	0.51	915	1,059	6.50

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Bruce Highway	33,852	100.0%	0.91	1,548	0.0%	-
Fuel	12,055	100.0%	0.34	163	0.0%	-
General	8,293	100.0%	0.23	179	0.0%	-
Horticulture	3,594	100.0%	0.09	155	0.0%	-
Landsborough Highway	15,932	100.0%	0.35	1,447	0.0%	-
Livestock	4,699	99.3%	0.08	118	0.7%	0
Fuel	3,829	100.0%	0.06	156	0.0%	-
General	3,075	100.0%	0.07	92	0.0%	-
Gregory Development Road	37,132	100.0%	0.51	915	0.0%	-
Fuel	12,569	100.0%	0.13	19	0.0%	-
General	9,506	100.0%	0.14	93	0.0%	-
Livestock	5,633	81.2%	0.05	43	18.8%	6.50

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Bruce Highway	85/88	McKinlay(S)	General	100%
Landsborough Highway	115/116	Burke(S)	Cropping	100%
Gregory Development Road	146/148	Etheridge(S)	Cropping	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Bruce Highway	10/88	Murrumbidgee(A)	Livestock	1%
Landsborough Highway	9/116	Cloncurry(S)	Livestock	2%
Gregory Development Road	42/148	Charters Towers(R)	Livestock	24%

Risk Rating

Risk	Bruce Highway	Landsborough Highway	Gregory Development Road
Cyclones and Storms	3	2	2
Seismicity	0	0	0
Bushfire	0	1	0
Flooding	3	3	3
Extreme Heat	0.5	1.5	1.5
Landslide	0	0	0
Total	6.5	7.5	6.5

Vulnerability Rating

Bruce Highway	Very Low
Landsborough Highway	Low
Gregory Development Road	Very Low

Vulnerability Rating

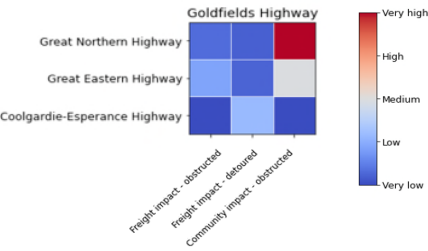
Flinders Highway	Low
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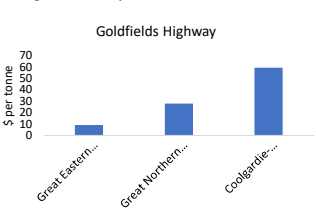
Goldfields Highway

The Goldfields Highway KFR is a 790km freight route located in central Western Australia. It connects LGAs from Kalgoorlie and Wiluna to the Coolgardie-Esperance Highway. Fuel and mining transport represents approximately 90% of the total freight task, with most movements between ports and mines of fuel and mining output. The route is also used for processed food and general freight to communities, but are relatively small quantities compared to mining freight.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Great Eastern Highway	7,330	5,911	0.05	102	1,419	2.76
Great Northern Highway	354	334	0.01	1,143	20	0.15
Coolgardie-Esperance Highway	7,582	7,580	0.45	3,450	1	0.00

Weekly impact of top commodities

Intersection	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Great Eastern Highway	5,693	76.8%	0.04	4	23.2%	2
Fuel	733	100.0%	0.00	22	0.0%	-
Mining	497	100.0%	0.01	41	0.0%	-
General						
Great Northern Highway	231	100.0%	0.01	573	0.0%	-
Fuel	56	100.0%	0.00	193	0.0%	-
Construction	50	81.5%	0.00	243	18.5%	0.06
Livestock						
Coolgardie-Esperance Highway	6,061	100.0%	0.33	501	0.0%	0
Fuel	731	100.0%	0.03	390	0.0%	-
Mining	415	100.0%	0.04	273	0.0%	-
General						

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Great Eastern Highway	34/37	Dundas(S)	Livestock	100%
Great Northern Highway	16/20	Dundas(S)	Livestock	100%
Coolgardie-Esperance Highway	31/32	Dundas(S)	Livestock	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Great Eastern Highway	4/37	Dundas(S)	Fuel	49%
Great Northern Highway	5/20	Wiluna(S)	Horticulture	100%
Coolgardie-Esperance Highway	1/32	Coolgardie(S)	Fuel	0%

Risk Rating

Risk	Great Eastern Highway	Great Northern Highway	Coolgardie-Esperance Highway
Cyclones and Storms	0	1	0
Seismicity	3	1	1
Bushfire	1	0	0
Flooding	0	0	0
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	5.5	3.5	2.5

Vulnerability Rating

Great Eastern Highway	Very Low
Great Northern Highway	Very Low
Coolgardie-Esperance Highway	Very Low

Vulnerability Rating

Goldfields Highway	Very Low
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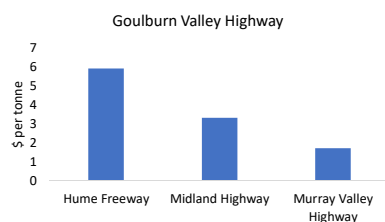
## Goulburn Valley Highway

The Goulburn Valley Highway KFR is a 225km freight route located in central Victoria. It connects LGAs between Eildon and the Newell Highway on the New South Wales border. Cropping transport represents approximately 30% of the total freight task, with most movements from properties. The route is also used for processed food and fuel, contributing 15% each. Horticulture and general freight add a further 10% each to the total freight task. 18% of movements along this route are destined to distribution centres.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Hume Freeway	29,378	24,244	0.14	45	5,135	0.50
Midland Highway	31,243	30,723	0.10	62	521	0.89
Murray Valley Highway	76,002	75,801	0.13	35	201	0.37

Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Hume Freeway						
General	8,860	100.0%	0.07	37	0.0%	-
Fuel	6,284	100.0%	0.04	9	0.0%	-
Construction	6,161	16.7%	0.01	32	83.3%	1
Midland Highway						
Cropping	10,348	99.8%	0.04	18	0.2%	0
Processed food	6,642	99.8%	0.01	4	0.2%	0.12
Fuel	6,510	97.8%	0.02	15	2.2%	0.23
Murray Valley Highway						
Cropping	29,441	100.0%	0.06	1	0.0%	0
Processed food	11,046	99.8%	0.01	22	0.2%	0.01
General	10,172	100.0%	0.04	4	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Hume Freeway	114/123	Berrigan(A)	General	100%
Midland Highway	106/106	Benalla(RC)	Fuel	81%
Murray Valley Highway	224/227	Berrigan(A)	General	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Hume Freeway	10/123	PortPhillip(C)	Construction	4%
Midland Highway	4/106	GreaterShepparton(C)	Construction	2%
Murray Valley Highway	8/227	Moir(S)	Fuel	2%

Risk Rating

Risk	Hume Freeway	Midland Highway	Murray Valley Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	2	3
Extreme Heat	1	1	1
Landslide	0	0	0
Total	5	4	5

Vulnerability Rating

Hume Freeway	Very Low
Midland Highway	Very Low
Murray Valley Highway	Very Low

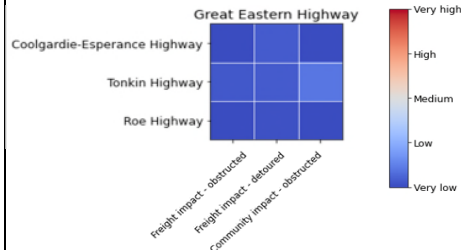
Vulnerability Rating

Goulburn Valley highway	Very Low
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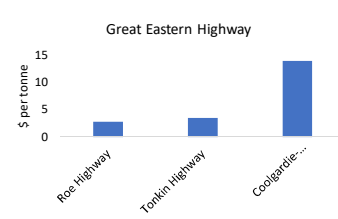
## Great Eastern Highway

The Great Eastern Highway KFR is a 636km freight route located in Western Australia that connects LGAs from Kalgoorlie to Perth. Mining transport represents approximately 55% of the total freight task, with movements from mines to a rail loading points being the majority. Cropping contributes 25% to the total freight task, with movements from properties to silos.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Roe Highway	83,236	83,231	0.23	12	4	0.00
Tonkin Highway	7,160	6,950	0.02	19	210	0.21
Coolgardie-Esperance Highway	29,686	29,683	0.41	248	3	0.00

Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Roe Highway						
Cropping	31,085	100.0%	0.08	1	0.0%	-
General	14,991	100.0%	0.06	0	0.0%	-
Fuel	11,819	100.0%	0.03	3	0.0%	-
Tonkin Highway						
General	4,283	100.0%	0.02	2	0.0%	-
Construction	1,044	100.0%	0.00	1	0.0%	-
Fuel	859	85.7%	0.00	1	14.3%	0.20
Coolgardie-Esperance Highway						
General	11,502	100.0%	0.20	59	0.0%	-
Fuel	6,063	100.0%	0.13	123	0.0%	0.00
Horticulture	4,628	100.0%	0.01	26	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Roe Highway	133/134	Laverton(S)	General	100%
Tonkin Highway	26/27	Nedlands(C)	Fuel	99%
Coolgardie-Esperance Highway	146/147	Laverton(S)	General	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Roe Highway	1/134	Canning(C)	Waste	0%
Tonkin Highway	2/27	Belmont(C)	Fuel	10%
Coolgardie-Esperance Highway	1/147	Coolgardie(S)	Fuel	0%

Risk Rating

Risk	Roe Highway	Tonkin Highway	Coolgardie-Esperance Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	2
Bushfire	0	0	0
Flooding	2	2	0
Extreme Heat	1	1	1.5
Landslide	0	0	0
Total	4	4	3.5

Vulnerability Rating

Roe Highway	Very Low
Tonkin Highway	Very Low
Coolgardie-Esperance Highway	Very Low

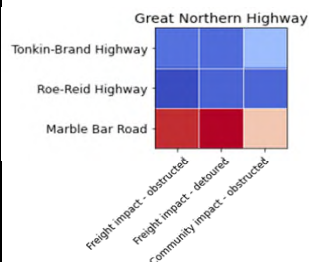
Vulnerability Rating

Great Eastern Highway	Very Low
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## Great Northern Highway

The Great Northern Highway KFR is a 3,254km freight route located in Western Australia that connects Perth to Wyndham in the north. Mining transport represents approximately 35% of the total freight task, with movements from mines to ports being the majority. Cropping contributes 25% to the total freight task, with movements from properties to silos.

### Impact Matrix



### Average detour cost per tonne



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Roe-Reid Highway	144/146	Dandaragan(S)	General	100%
Tonkin-Brand Highway	112/113	Dandaragan(S)	General	100%
Marble Bar Road	50/51	Broome(S)	Wood Product	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Roe-Reid Highway	9/146	Swan(C)	Fuel	6%
Tonkin-Brand Highway	5/113	Chittering(S)	Construction	30%
Marble Bar Road	3/51	PortHedland(T)	Mining	61%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Roe-Reid Highway	60,130	60,003	0.30	38	126	0.22
Tonkin-Brand Highway	56,970	55,711	0.34	101	1,259	0.31
Marble Bar Road	30,886	8,569	5.22	46,827	22,317	68.35

### Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Roe-Reid Highway	15,449	99.2%	0.07	5	0.8%	0
Fuel	13,421	100.0%	0.07	5	0.0%	-
Mining	11,978	100.0%	0.05	2	0.0%	-
Cropping	15,077	100.0%	0.06	5	0.0%	-
Tonkin-Brand Highway	13,419	100.0%	0.09	2	0.0%	-
Fuel	11,374	99.9%	0.07	5	0.1%	0.00
Mining	20,000	0.0%	-	-	100.0%	65
Fuel	7,567	69.5%	3.37	7,237	30.5%	3.70
General	1,579	100.0%	0.62	3,852	0.0%	-

### Risk Rating

Risk	Roe-Reid Highway	Tonkin-Brand Highway	Marble Bar Road
Cyclones and Storms	0	0	2
Seismicity	1	1	2
Bushfire	0	0	1
Flooding	2	3	0
Extreme Heat	1	1	1.5
Landslide	0	0	0
Total	4	5	6.5

### Vulnerability Rating

Roe-Reid Highway	Very Low
Tonkin-Brand Highway	Very Low
Marble Bar Road	Medium

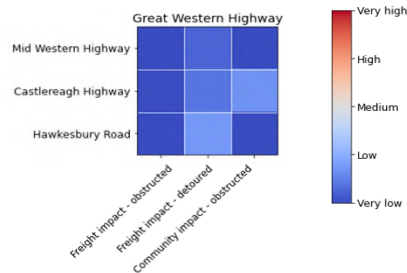
### Vulnerability Rating

Great Northern Highway	Medium
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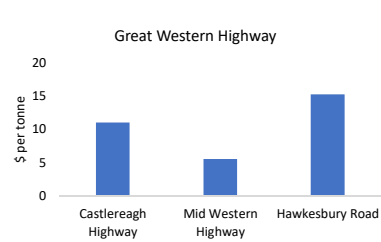
## Great Western Highway

The Great Western Highway KFR is a 213km freight route located in New South Wales. It connects LGAs from Bathurst to Penrith. Fuel transport represents approximately 27% of the total freight task, with movements from ports to depots being the majority. Wood product contributes 23% to the total freight task, and general freight, processed foods and construction add a further 10% each.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Castlereagh Highway	134/135	Bogan(A)	Horticulture	100%
Mid Western Highway	88/88	Blayney(A)	General	100%
Hawkesbury Road	108/108	Bogan(A)	Horticulture	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Castlereagh Highway	1/135	BathurstRegional(A)	General	17%
Mid Western Highway	0/88	0	0	0%
Hawkesbury Road	1/108	Penrith(C)	Waste	0%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Castlereagh Highway	67,426	67,120	0.74	432	307	3.39
Mid Western Highway	23,253	23,253	0.13	184	-	-
Hawkesbury Road	84,298	84,289	1.28	665	8	0.00

Weekly impact of top commodities

Castlereagh Highway	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	23,137	100.0%	0.24	63	0.0%	0
General	11,963	98.4%	0.19	36	1.6%	2.82
Processed Food	11,023	100.0%	0.10	46	0.0%	-
Mid Western Highway	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Wood Product	8,029	100.0%	0.03	6	0.0%	-
Fuel	7,674	100.0%	0.06	33	0.0%	-
Processed Food	2,459	100.0%	0.02	22	0.0%	-
Hawkesbury Road	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	26,819	100.0%	0.33	74	0.0%	-
General	13,607	100.0%	0.32	67	0.0%	-
Wood Product	11,623	100.0%	0.14	60	0.0%	-

Risk Rating

Risk	Castlereagh Highway	Mid Western Highway	Hawkesbury Road
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	1
Flooding	3	3	3
Extreme Heat	0.5	0.5	1
Landslide	0	0	0
Total	4.5	4.5	6

Vulnerability Rating

Castlereagh Highway	Very Low
Mid Western Highway	Very Low
Hawkesbury Road	Very Low

Vulnerability Rating

Great Western Highway	Very Low
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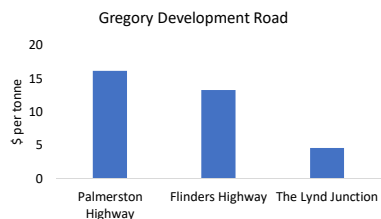
## Gregory Development Road

The Gregory Development Road KFR is a 549km freight route located in central Queensland. It connects LGAs from Charters Towers to Cairns via an inland route providing access to the Atherton Tablelands. Cropping, fuel, horticulture and livestock each contribute 15% to the total freight task. Wood product adds a further 10%. The route provides an important role in providing access to markets for primary produce, with 40% of all movements originating at a property.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Palmerston Highway	10,381	1,196	0.02	932	9,185	28.40
Flinders Highway	4,489	4,469	0.06	305	19	0.12
The Lynd Junction	11,167	317	0.00	104	10,850	31.56

Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		% obstructed	Total Value (\$m)
			Total costs (\$m)	Average distance (km)		
Palmerston Highway						
Cropping	2,933	0.0%	0.00	129	100.0%	1
Horticulture	2,789	0.1%	0.00	42	99.9%	10.79
Fuel	1,949	53.4%	0.02	201	46.6%	1
Flinders Highway						
Livestock	1,774	98.9%	0.02	48	1.1%	0
General	939	100.0%	0.03	36	0.0%	-
Horticulture	588	100.0%	0.00	32	0.0%	-
The Lynd Junction						
Horticulture	3,063	0.4%	0.00	36	99.6%	12
Cropping	2,932	0.0%	-	-	100.0%	1.35
Wood Product	1,821	0.0%	-	-	100.0%	3.97

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Palmerston Highway	24/63	TorresStraitIsland(R)	General	100%
Flinders Highway	88/88	Etheridge(S)	Cropping	100%
The Lynd Junction	14/55	Croydon(S)	Fuel	50%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Palmerston Highway	54/63	Tablelands(R)	Horticulture	100%
Flinders Highway	6/88	FraserCoast(R)	Livestock	3%
The Lynd Junction	49/55	Tablelands(R)	Horticulture	100%

Risk Rating

Risk	Palmerston Highway	Flinders Highway	The Lynd Junction
Cyclones and Storms	2	2	2
Seismicity	1	0	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	0.5	1.5	0.5
Landslide	0	0	0
Total	6.5	6.5	6.5

Vulnerability Rating

Palmerston Highway	High
Flinders Highway	Very Low
The Lynd Junction	High

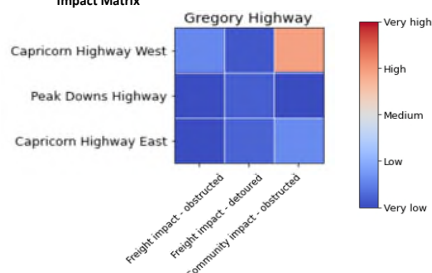
Vulnerability Rating

Gregory Development Road	High
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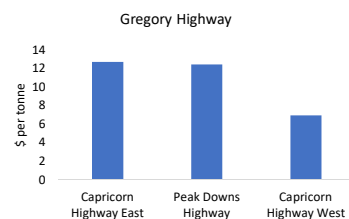
## Gregory Highway

The Gregory Highway KFR is a 188km freight route located in central Queensland. It connects LGAs from Springsure to the Peak Downs Highway. Fuel transport represents approximately 32% of the total freight task, with movements from ports to depots being the majority. Cropping contributes 20% to the total freight task, and general freight and livestock add 15% each.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Capricorn Highway East	27,251	27,117	0.35	605	134	1.50
Peak Downs Highway	25,808	25,724	0.32	530	84	0.12
Capricorn Highway West	27,930	23,777	0.16	241	4,153	10.78

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Capricorn Highway East	8,728	100.0%	0.10	42	0.0%	-
Fuel	5,651	98.3%	0.09	79	1.7%	1.43
General	5,421	99.5%	0.07	67	0.5%	0
Cropping						
Peak Downs Highway	7,730	100.0%	0.10	15	0.0%	-
Fuel	5,523	100.0%	0.08	108	0.0%	-
General	4,455	99.7%	0.05	43	0.3%	0.10
Livestock						
Capricorn Highway West	9,440	59.6%	0.04	25	40.4%	6
Fuel	5,555	96.9%	0.04	39	3.1%	2.57
General	5,423	100.0%	0.04	13	0.0%	-
Livestock						

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Capricorn Highway East	119/119	Etheridge(S)	Cropping	100%
Peak Downs Highway	140/140	Etheridge(S)	Cropping	100%
Capricorn Highway West	129/129	Etheridge(S)	Cropping	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Capricorn Highway East	3/119	CentralHighlands(R)(Qld)	General	15%
Peak Downs Highway	7/140	Walcha(A)	Livestock	0%
Capricorn Highway West	9/129	CentralHighlands(R)(Qld)	Vehicles	73%

Risk Rating

Risk	Capricorn Highway East	Peak Downs Highway	Capricorn Highway West
Cyclones and Storms	0	1	0
Seismicity	0	0	0
Bushfire	0	1	1
Flooding	3	3	3
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	4.5	6.5	5.5

Vulnerability Rating

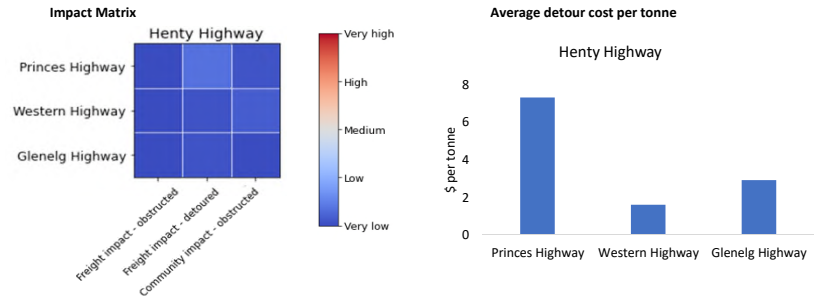
Capricorn Highway East	Very Low
Peak Downs Highway	Very Low
Capricorn Highway West	Very Low

Vulnerability Rating

Gregory Highway	Very Low
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## Henty Highway

The Henty Highway KFR is a 358km freight route located in western Victoria. It connects LGAs from the Sunraysia Highway to Portland. Wood product transport represents approximately 56% of the total freight task, with movements from properties to ports being the majority. Cropping contributes 20% to the total freight task, and fuel adds 10%.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Princes Highway	51/51	Glenelg(S)	Vehicles	100%
Western Highway	120/120	Horsham(RC)	Construction	100%
Glenelg Highway	134/134	Corangamite(S)	Wood Product	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Princes Highway	2/51	Glenelg(S)	Waste	2%
Western Highway	2/120	Horsham(RC)	Waste	4%
Glenelg Highway	1/134	SouthernGrampians(S)	Cropping	0%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Princes Highway	90,734	90,716	0.66	285	18	0.01
Western Highway	14,769	14,756	0.02	-	13	0.00
Glenelg Highway	26,274	26,271	0.08	33	3	0.00

### Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Princes Highway						
Wood Product	79,810	100.0%	0.59	26	0.0%	0
Cropping	3,629	99.8%	0.01	21	0.2%	0.00
Mining	3,476	100.0%	0.03	34	0.0%	-
Western Highway						
Cropping	6,352	99.9%	0.01	1	0.1%	0
Mining	2,657	100.0%	0.01	0	0.0%	0.00
Fuel	1,673	100.0%	0.00	1	0.0%	-
Glenelg Highway						
Wood Product	17,766	100.0%	0.06	4	0.0%	-
Livestock	1,944	100.0%	0.01	1	0.0%	-
Cropping	1,894	99.9%	0.00	3	0.1%	0.00

### Risk Rating

Risk	Princes Highway	Western Highway	Glenelg Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	1	0
Extreme Heat	1	1	1
Landslide	0	0	0
Total	5	3	2

### Vulnerability Rating

Princes Highway	Very Low
Western Highway	Very Low
Glenelg Highway	Very Low

### Vulnerability Rating

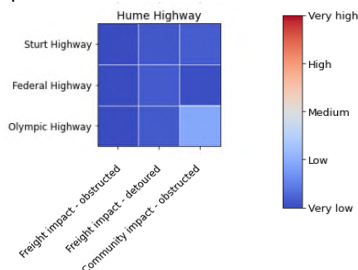
Henty Highway	Very Low
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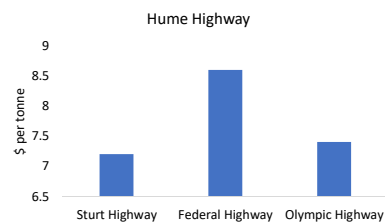
## Hume Highway

The Hume Highway KFR is a 870km northeast-southwest corridor through New South Wales connecting the Hume Freeway to the Hume Motorway. It has connections to the Sturt highway heading west and the Barton and Federal Highways into the Australian Capital Territory as well as the Olympic Highway. General freight and fuel moving from port to depots/distribution centres and on to markets each contribute 20% to the total freight task, while wood product movements contribute approximately 17% of the total freight task moving from forestries to ports or mills and then on to distribution centres and markets. Construction and processed food both contribute 10% each to the total freight task.

### Impact Matrix



### Average detour cost per tonne



### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Sturt Highway	235,333	235,131	1.70	25	202	0.14
Federal Highway	269,464	269,443	2.32	178	21	0.13
Olympic Highway	217,117	216,975	1.60	94	143	0.46

### Weekly impact of top commodities

Commodity	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Sturt Highway						
General	77,935	100.0%	0.84	9	0.0%	-
Fuel	53,491	100.0%	0.30	8	0.0%	-
Wood Product	36,106	100.0%	0.16	2	0.0%	-
Federal Highway						
General	85,127	100.0%	1.03	20	0.0%	-
Fuel	64,377	100.0%	0.40	15	0.0%	-
Processed Food	29,663	100.0%	0.18	2	0.0%	-
Olympic Highway						
General	59,938	100.0%	0.73	23	0.0%	0
Fuel	53,692	99.8%	0.27	15	0.2%	0.19
Wood product	41,980	100.0%	0.30	13	0.0%	-

### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Sturt Highway	321/323	Federation(A)	Vehicles	100%
Federal Highway	323/326	Hilltops(A)	Horticulture	100%
Olympic Highway	239/240	Federation(A)	Vehicles	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Sturt Highway	7/323	YassValley(A)	Construction	4%
Federal Highway	7/326	Shoalhaven(C)	Livestock	1%
Olympic Highway	4/240	GreaterHumeShire(A)	Vehicles	23%

### Risk Rating

Risk	Sturt Highway	Federal Highway	Olympic Highway
Cyclones and Storms	0	0	0
Seismicity	1	2	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1	1	1
Landslide	0	0	0
Total	5	6	5

### Vulnerability Rating

Sturt Highway	Very Low
Federal Highway	Very Low
Olympic Highway	Very Low

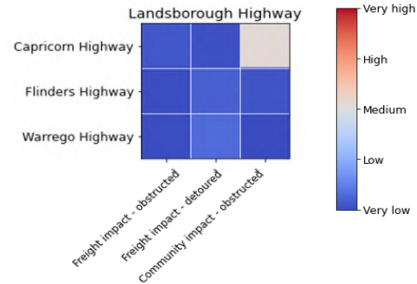
### Vulnerability Rating

Hume Highway	Very Low
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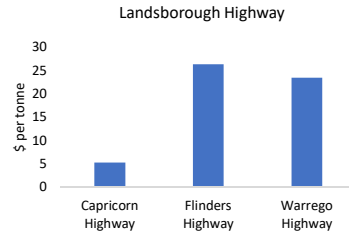
## Landsborough Highway

The Landsborough Highway KFR is a 1,034km freight route located in Queensland. It connects LGAs from the Flinders Highway in the northwest to the Warrego Highway in the southwest via Barcardine. Livestock transport represents approximately 30% of the total freight task, with movements from properties to properties being the majority. Mining contributes 20% to the total freight task, with fuel adding 15%. Horticulture heading southeast and general freight heading northwest each contribute 10% to the total freight task.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Capricorn Highway	20,665	20,515	0.11	132	150	0.33
Flinders Highway	8,640	8,615	0.23	1,587	25	0.15
Warrego Highway	8,134	8,120	0.19	833	15	0.09

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Capricorn Highway	20,665	99.9%	0.04	132	0.1%	0
Livestock	6,395	100.0%	0.03	7	0.0%	0.00
General	4,949	100.0%	0.00	5	0.0%	0
Horticulture	3,458	100.0%	0.00	5	0.0%	0
Flinders Highway	8,640	99.1%	0.05	91	0.9%	0
Livestock	2,962	100.0%	0.04	133	0.0%	-
Fuel	1,946	100.0%	0.05	144	0.0%	-
General	1,450	100.0%	0.05	144	0.0%	-
Warrego Highway	8,134	99.6%	0.08	80	0.4%	0
Livestock	3,969	100.0%	0.04	93	0.0%	-
General	1,408	100.0%	0.03	185	0.0%	-
Horticulture	790	100.0%	0.03	185	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Capricorn Highway	187/188	Winton(S)	Cropping	100%
Flinders Highway	103/103	Burke(S)	Cropping	100%
Warrego Highway	94/94	Boulia(S)	Cropping	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Capricorn Highway	5/188	Longreach(R)	Cropping	52%
Flinders Highway	7/103	Winton(S)	Livestock	2%
Warrego Highway	5/94	Murweh(S)	Livestock	0%

Risk Rating

Risk	Capricorn Highway	Flinders Highway	Warrego Highway
Cyclones and Storms	0	2	0
Seismicity	0	0	0
Bushfire	0	1	0
Flooding	3	3	0
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	4.5	7.5	1.5

Vulnerability Rating

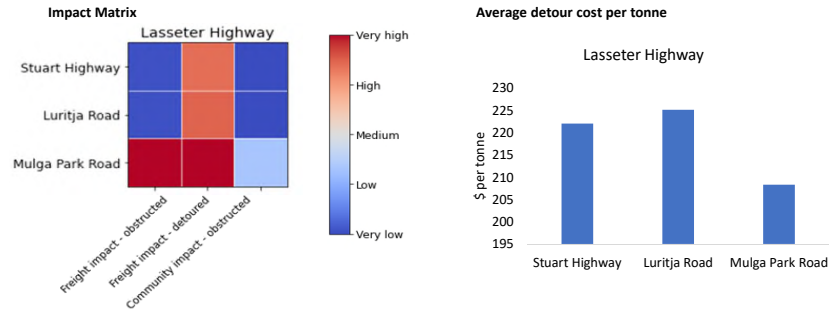
Capricorn Highway	Very Low
Flinders Highway	Low
Warrego Highway	Very Low

Vulnerability Rating

Landsborough Highway	Low
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## Lasseter Highway

The Lasseter Highway KFR is a 245km freight route located in the Northern Territory. It connects LGAs from the Stuart Highway west to Yulara. Fuel transport represents approximately 50% of the total freight task, with movements from depots to stations being the majority. Livestock contributes 30% to the total freight task and importantly, movements to supermarkets add a further 10% to the freight (includes processed food and general freight).



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	23/23	MacDonnell(R)	Horticulture	62%
Luritja Road	19/19	MacDonnell(R)	Horticulture	62%
Mulga Park Road	2/17	MacDonnell(R)	Livestock	1%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Stuart Highway	1/23	UnincorporatedSA	Livestock	0%
Luritja Road	1/19	UnincorporatedSA	Livestock	0%
Mulga Park Road	17/17	UnincorporatedNT	Fuel	33%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Stuart Highway	265	262	0.06	12,698	3	0.02
Luritja Road	256	253	0.06	12,577	3	0.02
Mulga Park Road	155	3	0.00	2,231	152	0.59

### Weekly impact of top commodities

Stuart Highway	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	148	100.0%	0.04	2,743	0.0%	-
Livestock	84	96.3%	0.01	570	3.7%	0.02
Processed Food	18	100.0%	0.01	2,453	0.0%	-
Luritja Road	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	148	100.0%	0.04	2,743	0.0%	-
Livestock	75	95.9%	0.01	447	4.1%	0.02
Processed Food	18	100.0%	0.01	2,454	0.0%	-
Mulga Park Road	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	74	0.0%	-	-	100.0%	0
Livestock	68	4.5%	0.00	2,231	95.5%	0.39
Processed Food	7	0.0%	-	-	100.0%	0.06

### Risk Rating

Risk	Stuart Highway	Luritja Road	Mulga Park Road
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	5.5	5.5	5.5

### Vulnerability Rating

Stuart Highway	Very Low
Luritja Road	Very Low
Mulga Park Road	High

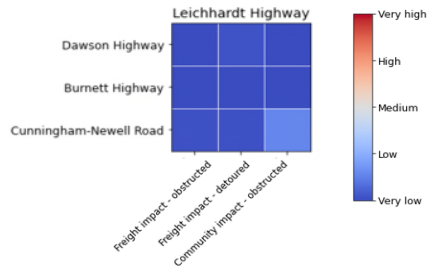
### Vulnerability Rating

Lasseter Highway	High
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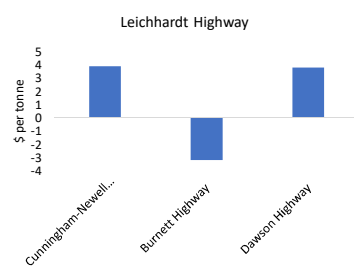
## Leichhardt Highway

The Leichhardt Highway KFR is a 610km freight route located in Queensland. It connects LGAs from the Capricorn Highway west of Rockhampton to the New South Wales border near Goondiwindi. Cropping transport represents approximately 30% of the total freight task, with movements from properties to silos being the majority. Fuel contributes 15% to the total freight task, while livestock, horticulture moving south and general freight moving north add 10% each.

### Impact Matrix



### Average detour cost per tonne



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Cunningham-Newell Road	300/303	Horsham(RC)	Construction	100%
Burnett Highway	173/173	Livingstone(S)	Vehicles	100%
Dawson Highway	168/168	Woorabinda(S)	General	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Cunningham-Newell Road	4/303	SouthernDowns(R)	Fuel	14%
Burnett Highway	0/173	#VALUE!	0	0%
Dawson Highway	3/168	Banana(S)	Cropping	0%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Cunningham-Newell Road	80,356	79,827	0.31	156	530	0.88
Burnett Highway	21,416	21,416	0.07	91	-	-
Dawson Highway	34,615	34,600	0.13	17	15	0.06

### Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Cunningham-Newell Road						
Cropping	24,797	100.0%	0.18	52	0.0%	-
Horticulture	14,019	100.0%	0.06	2	0.0%	-
General	10,636	100.0%	0.06	12	0.0%	-
Burnett Highway						
Horticulture	7,238	100.0%	0.09	39	0.0%	-
Livestock	4,498	100.0%	0.03	9	0.0%	-
Cropping	3,152	100.0%	0.02	21	0.0%	-
Dawson Highway						
Mining	9,774	100.0%	0.06	4	0.0%	-
Horticulture	7,222	100.0%	0.08	33	0.0%	-
Livestock	4,698	99.8%	0.07	32	0.2%	0.06

### Risk Rating

Risk	Cunningham-Newell Road	Burnett Highway	Dawson Highway
Cyclones and Storms	0	0	0
Seismicity	1	0	0
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1.5	1	1.5
Landslide	0	0	0
Total	5.5	4	4.5

### Vulnerability Rating

Cunningham-Newell Road	Very Low
Burnett Highway	Very Low
Dawson Highway	Very Low

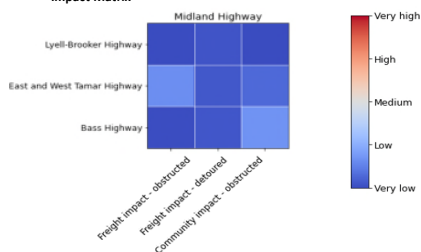
### Vulnerability Rating

Leichhardt Highway	Very Low
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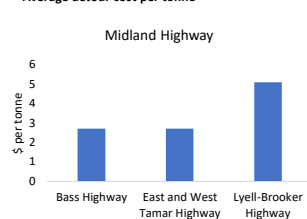
## Midland Highway

The Midland Highway KFR is a 225km freight route located in Tasmania. It connects LGAs from Launceston to Hobart. Wood product transport represents approximately 35% of the total freight task, with movements from properties to ports being the majority. Construction contributes 29% to the total freight task, and processed food and general freight add a further 10% each.

### Impact Matrix



### Average detour cost per tonne



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Bass Highway	100/103	Launceston(C)	Mining	100%
East and West Tamar Highway	62/65	WestTamar(M)	General	91%
Lyell-Brooker Highway	67/69	Glenorchy(C)	Wood Product	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Bass Highway	1/103	Launceston(C)	Vehicles	17%
East and West Tamar Highway	1/65	Launceston(C)	Construction	7%
Lyell-Brooker Highway	0/69	0	0	0%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Bass Highway	48,544	48,424	0.13	8	120	1.32
East and West Tamar Highway	35,445	34,009	0.09	6	1,436	0.43
Lyell-Brooker Highway	27,276	27,276	0.14	31	-	-

### Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Bass Highway	17,435	100.0%	0.05	3	0.0%	-
Wood Product	10,822	100.0%	0.03	1	0.0%	-
Construction	6,079	99.3%	0.01	3	0.7%	0
East and West Tamar Highway	11,297	87.4%	0.02	0	12.6%	0
Construction	11,096	100.0%	0.03	6	0.0%	-
Wood Product	4,328	100.0%	0.01	0	0.0%	-
Fuel	8,706	100.0%	0.03	4	0.0%	-
Lyell-Brooker Highway	6,511	100.0%	0.03	13	0.0%	-
Construction	4,195	100.0%	0.04	5	0.0%	-
General						

### Risk Rating

Risk	Bass Highway	East and West Tamar Highway	Lyell-Brooker Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	0	0	0
Extreme Heat	0.5	0.5	0.5
Landslide	0	0	0
Total	1.5	1.5	1.5

### Vulnerability Rating

Bass Highway	Very Low
East and West Tamar Highway	Very Low
Lyell-Brooker Highway	Very Low

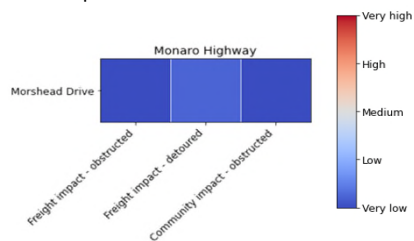
### Vulnerability Rating

Midland Highway	Very Low
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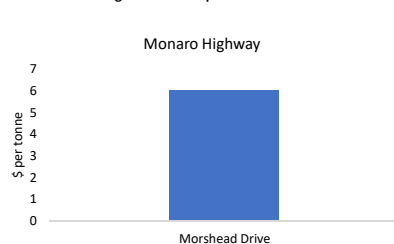
## Monaro Highway

The Monaro Highway KFR is a 32km freight route located in the Australia Capital Territory. It runs north-south through Canberra. Fuel transport represents approximately 42% of the total freight task, with construction adding a further 28%.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Morshead Drive	100/100	SnowyMonaroRegional(A)	Horticulture	73%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Morshead Drive	1/100	UnincorporatedACT	Waste	0%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Morshead Drive	43,299	43,290	0.26	195	8	0.00

Weekly impact of top commodities

	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	19,610	100.0%	0.09	17	0.0%	-
Construction	7,603	100.0%	0.04	15	0.0%	-
Wood Product	4,898	100.0%	0.03	11	0.0%	-

Risk Rating

Risk	Morshead Drive
Cyclones and Storms	0
Seismicity	2
Bushfire	0
Flooding	3
Extreme Heat	1
Landslide	0
Total	6

Vulnerability Rating

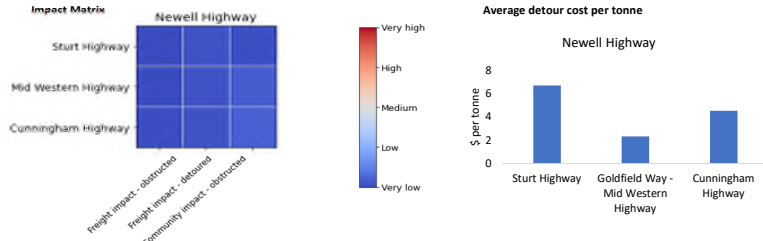
Morshead Drive	Very Low
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Vulnerability Rating

Monaro Highway	Very Low
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## Newell Highway

The Newell Highway KFR is a 1,065km freight route extending between the New South Wales-Queensland border at Goondiwindi in the north to the New South Wales-Victoria border at Tocumwal in the south. Cropping transport represents approximately 50% of the total freight task, with movements from properties to silos being the majority. Fuel, livestock and general freight add 10% each to the total freight task, and processed food and horticulture add 7% each.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Sturt Highway	372/376	Flinders(M)(Tas.)	Cropping	100%
Goldfield Way -Mid Western Highway	240/242	Horsham(RC)	Construction	100%
Cunningham Highway	304/307	Horsham(RC)	Construction	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Sturt Highway	5/376	Narrandera(A)	Livestock	1%
Goldfield Way -Mid Western Highway	1/242	Bland(A)	Waste	4%
Cunningham Highway	2/307	WesternDowns(R)	Construction	5%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Sturt Highway	92,226	92,205	0.62	197	21	0.11
Goldfield Way -Mid Western Highway	59,781	59,776	0.14	32	4	0.00
Cunningham Highway	75,906	75,829	0.34	105	77	0.01

### Weekly impact of top commodities

Sturt Highway	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
General	22,568	100.0%	0.17	15	0.0%	-
Cropping	18,708	100.0%	0.10	23	0.0%	0.00
Horticulture	14,168	100.0%	0.03	2	0.0%	-
Goldfield Way -Mid Western Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Cropping	14,529	100.0%	0.05	12	0.0%	-
Horticulture	9,653	100.0%	0.07	0	0.0%	-
Livestock	9,083	100.0%	0.08	16	0.0%	-
Cunningham Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Cropping	19,263	100.0%	0.14	31	0.0%	-
Horticulture	14,711	100.0%	0.05	4	0.0%	-
General	11,344	100.0%	0.08	37	0.0%	-

### Risk Rating

Risk	Sturt Highway	Goldfield Way -Mid Western Highway	Cunningham Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1	1	1.5
Landslide	0	0	0
Total	5	5	5.5

### Vulnerability Rating

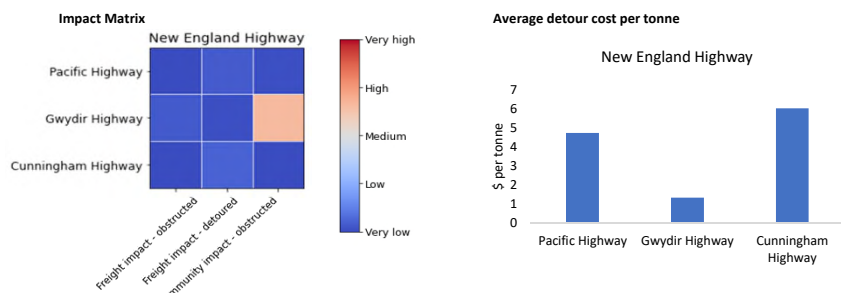
Sturt Highway	Very Low
Goldfield Way -Mid Western Highway	Very Low
Cunningham Highway	Very Low

### Vulnerability Rating

Newell Highway	Very Low
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## New England Highway

The New England Highway KFR is a 813km freight route extending between Toowoomba in Queensland to Newcastle in New South Wales. Fuel transport represents approximately 25% of the total freight task, with movements from ports to depots and on the stations being the majority. Livestock, processed food, wood product and general freight add 10% each to the total freight task.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Pacific Highway	157/157	Cabonne(A)	Wood Product	100%
Gwydir Highway	152/152	GlenInnesSevern(A)	Wood Product	100%
Cunningham Highway	43/43	GlenInnesSevern(A)	General	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Pacific Highway	1/157	Newcastle(C)	Processed Food	1%
Gwydir Highway	4/152	GlenInnesSevern(A)	Fuel	66%
Cunningham Highway	1/43	SouthernDowns(R)	Livestock	0%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Pacific Highway	71,166	71,159	0.34	35	7	0.07
Gwydir Highway	30,896	30,452	0.04	-	443	2.24
Cunningham Highway	13,525	13,523	0.08	75	2	0.01

### Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Pacific Highway						
Wood Product	16,168	100.0%	0.09	15	0.0%	-
Fuel	14,599	100.0%	0.05	4	0.0%	-
Mining	10,044	100.0%	0.02	0	0.0%	-
Gwydir Highway						
Fuel	10,277	97.7%	0.00	1	2.3%	0
General	7,554	98.8%	0.01	6	1.2%	1.14
Livestock	4,370	99.8%	0.01	1	0.2%	0.05
Cunningham Highway						
Fuel	3,155	100.0%	0.02	15	0.0%	-
Processed Food	2,667	100.0%	0.02	4	0.0%	-
Livestock	2,054	99.9%	0.01	8	0.1%	0.01

### Risk Rating

Risk	Pacific Highway	Gwydir Highway	Cunningham Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1	0.5	1
Landslide	0	1	2
Total	5	5.5	7

### Vulnerability Rating

Pacific Highway	Very Low
Gwydir Highway	Very Low
Cunningham Highway	Low

### Vulnerability Rating

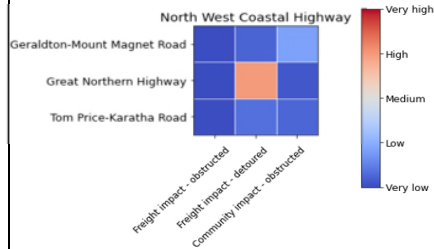
New England Highway	Low
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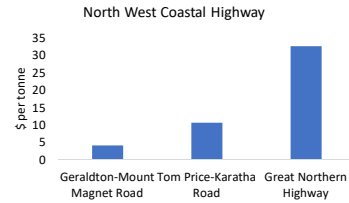
## North West Coastal Highway

The North West Coastal Highway KFR is a 1,300km freight route located in Western Australia. It connects LGAs from Geraldton to the Great Northern Highway near Port Hedland. Mining transport represents approximately 40% of the total freight task, with movements from mines to ports being the majority. Fuel and cropping add 25% each to the total freight task.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Geraldton-Mount Magnet Road	95/95	Carnarvon(S)	Horticulture	100%
Tom Price-Karatha Road	31/31	Karratha(C)	Wood Product	100%
Great Northern Highway	20/22	EastPilbara(S)	Cropping	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Geraldton-Mount Magnet Road	1/95	GreaterGeraldton(C)	Processed Food	21%
Tom Price-Karatha Road	1/31	Karratha(C)	Horticulture	6%
Great Northern Highway	6/22	PortHedland(T)	Livestock	3%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Geraldton-Mount Magnet Road	102,059	101,789	0.41	163	270	2.98
Tom Price-Karatha Road	6,323	6,298	0.07	582	26	0.15
Great Northern Highway	16,883	16,870	0.55	2,504	14	0.09

Weekly impact of top commodities

Intersection	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Geraldton-Mount Magnet Road						
Mining	51,820	100.0%	0.18	4	0.0%	-
Cropping	32,584	100.0%	0.11	4	0.0%	-
Fuel	13,959	100.0%	0.10	3	0.0%	-
Tom Price-Karatha Road						
Fuel	3,361	100.0%	0.04	84	0.0%	-
Construction	1,958	100.0%	0.01	5	0.0%	-
General	415	98.9%	0.01	51	1.1%	0.01
Great Northern Highway						
Fuel	15,412	100.0%	0.47	324	0.0%	-
Construction	778	100.0%	0.02	361	0.0%	-
Mining	288	100.0%	0.02	501	0.0%	-

Risk Rating

Risk	Geraldton-Mount Magnet	Tom Price-Karatha Road	Great Northern Highway
Cyclones and Storms	0	2	3
Seismicity	1	1	1
Bushfire	1	1	1
Flooding	1	0	0
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	4.5	5.5	6.5

Vulnerability Rating

Geraldton-Mount Magnet Road	Very Low
Tom Price-Karatha Road	Very Low
Great Northern Highway	Very Low

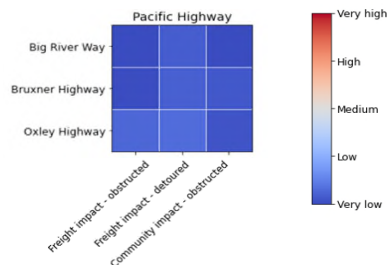
Vulnerability Rating

North West Coastal Highway	Very Low
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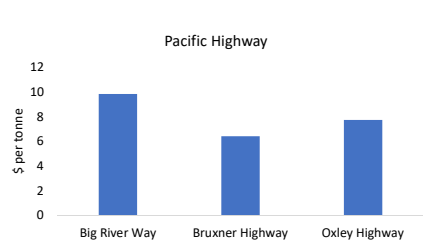
## Pacific Highway

The Pacific Highway KFR is a major north-south freight and commuter corridor connecting south of Byron Bay to Newcastle, with connections to LGAs in central west New South Wales. Fuel transport represents approximately 25% of the total freight task, with critical links from ports to depots and on to service stations. General freight and processed food comprise a further 23% of the total freight task, with movements from ports to distribution centres and on to markets. The corridor also supports transport movements primarily of wood products from forestry plantations to sawmills and on to markets and cropping (sugar), with a further 25% of the total freight task attributed to these commodity groups.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Big River Way	84,319	84,316	0.82	110	3	0.02
Bruxner Highway	85,434	85,348	0.55	73	85	0.05
Oxley Highway	7,711	7,584	0.06	184	127	0.19

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Big River Way	84,319	100.0%	0.82	110	0.0%	-
General	27,969	100.0%	0.43	37	0.0%	-
Fuel	23,842	100.0%	0.17	32	0.0%	-
Processed Food	10,549	100.0%	0.04	20	0.0%	-
Bruxner Highway	85,434	100.0%	0.55	73	0.0%	-
General	29,310	100.0%	0.29	5	0.0%	-
Fuel	18,986	100.0%	0.12	9	0.0%	-
Processed Food	11,107	100.0%	0.01	30	0.0%	-
Oxley Highway	7,711	100.0%	0.06	184	0.0%	-
Fuel	3,301	96.4%	0.01	20	3.6%	0
General	1,804	100.0%	0.03	31	0.0%	-
Processed Food	1,222	100.0%	0.01	20	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Big River Way	166/166	Bellingen(A)	General	100%
Bruxner Highway	172/173	Bellingen(A)	General	100%
Oxley Highway	13/13	PortMacquarie-Hastings(A)	Horticulture	74%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Big River Way	3/166	Logan(C)	Livestock	0%
Bruxner Highway	7/173	Ballina(A)	Mining	3%
Oxley Highway	1/13	PortMacquarie-Hastings(A)	Fuel	2%

Risk Rating

Risk	Big River Way	Bruxner Highway	Oxley Highway
Cyclones and Storms	1	2	0
Seismicity	1	0	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	0.5	0.5	0.5
Landslide	0	0	1
Total	5.5	5.5	5.5

Vulnerability Rating

Stuart Highway	Very Low
Federal Highway	Very Low
Olympic Highway	Very Low

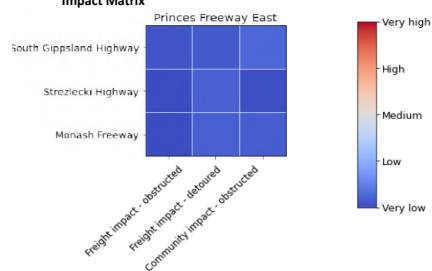
Vulnerability Rating

Hume Highway	Very Low
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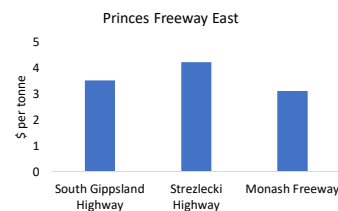
## Princes Freeway East

The Princes Freeway East KFR in a 338km freight route located in Victoria. It connects LGAs from Sale in the east to Melbourne. Wood product transport represents approximately 32% of the total freight task, with processed food and fuel adding a further 20% each.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
South Gippsland Highway	31,473	31,318	0.11	12	155	0.24
Stretzecki Highway	66,091	66,087	0.28	89	4	0.00
Monash Freeway	93,973	93,953	0.29	7	21	0.31

Weekly impact of top commodities

	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
South Gippsland Highway						
Wood Product	14,768	100.0%	0.05	1	0.0%	-
Processed Food	5,193	100.0%	0.01	1	0.0%	-
Livestock	3,286	100.0%	0.01	4	0.0%	-
Stretzecki Highway						
Wood Product	28,569	100.0%	0.13	5	0.0%	-
Fuel	12,507	100.0%	0.05	7	0.0%	-
Processed Food	11,483	100.0%	0.03	7	0.0%	-
Monash Freeway						
Wood Product	32,269	100.0%	0.10	9	0.0%	-
Fuel	23,234	100.0%	0.07	1	0.0%	-
Cropping	12,196	100.0%	0.03	4	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
South Gippsland Highway	132/132	Manningham(C)	Wood Product	100%
Stretzecki Highway	160/162	Ceduna(DC)	Wood Product	100%
Monash Freeway	188/192	BawBaw(S)	Mining	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
South Gippsland Highway	1/132	Wellington(S)	Fuel	6%
Stretzecki Highway	1/162	Latrobe(C)(Vic.)	Waste	1%
Monash Freeway	2/192	Casey(C)	Vehicles	4%

Risk Rating

Risk	South Gippsland Highway	Stretzecki Highway	Monash Freeway
Cyclones and Storms	0	0	0
Seismicity	2	3	2
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1	1	1
Landslide	0	0	0
Total	6	7	6

Vulnerability Rating

South Gippsland Highway	Very Low
Stretzecki Highway	Low
Monash Freeway	Very Low

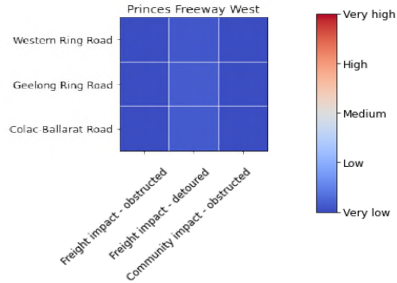
Vulnerability Rating

Princes Freeway East	Low
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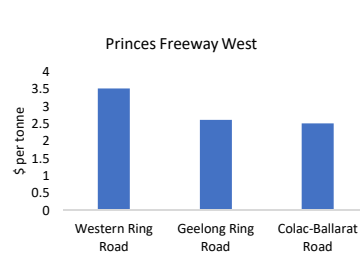
## Princes Freeway West

The Princes Freeway West KFR is a 292km freight route located in Victoria. The route heads west from Melbourne to Colac - this section is part of a longer KFR but has been separated into two sections due to geographical and freight task differences. General freight transport represents approximately 40% of the total freight task, with movements from ports being a large proportion. Fuel and wood product add 20% each to the total freight task.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Western Ring Road	154,311	154,311	0.55	29	-	-
Geelong Ring Road	102,271	102,267	0.27	30	4	0.00
Colac-Ballarat Road	91,615	91,608	0.23	26	8	0.00

Weekly impact of top commodities

Western Ring Road	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
General	38,809	100.0%	0.21	3	0.0%	-
Wood Product	36,208	100.0%	0.11	1	0.0%	-
Processed Food	22,739	100.0%	0.05	2	0.0%	-
Geelong Ring Road	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Wood Product	43,966	100.0%	0.12	7	0.0%	-
Fuel	17,362	100.0%	0.03	3	0.0%	-
Processed Food	12,264	100.0%	0.03	15	0.0%	-
Colac-Ballarat Road	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Wood Product	49,644	100.0%	0.13	4	0.0%	-
Fuel	15,998	100.0%	0.03	0	0.0%	-
Processed Food	13,396	100.0%	0.02	13	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Western Ring Road	172/176	Ceduna(DC)	Wood Product	100%
Geelong Ring Road	175/175	Warrnambool(C)	General	100%
Colac-Ballarat Road	153/153	Warrnambool(C)	General	100%

Community impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Western Ring Road	0/176	0	0	0%
Geelong Ring Road	1/175	GreaterGeelong(C)	Waste	0%
Colac-Ballarat Road	1/153	Colac-Otway(S)	Cropping	0%

Risk Rating

Risk	Western Ring Road	Geelong Ring Road	Colac-Ballarat Road
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	0	3
Extreme Heat	1	1	1
Landslide	0	0	0
Total	5	2	5

Vulnerability Rating

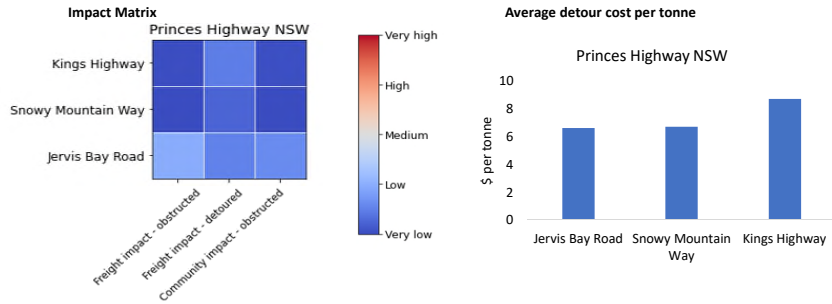
Western Ring Road	Very Low
Geelong Ring Road	Very Low
Colac-Ballarat Road	Very Low

Vulnerability Rating

Princes Freeway West	Very Low
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## Princes Highway NSW

The Princes Highway NSW KFR is a 504km freight route located in New South Wales. It connects LGAs from Shellharbour to the New South Wales-Victoria border. Fuel transport represents approximately 40% of the total freight task, with movements between ports to depots and on to fuel stations. Construction adds 15% and processed food a further 10% to the total freight task, mostly raw milk to dairy processors.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Jarvis Bay Road	42/42	Eurobodalla(A)	Horticulture	100%
Snowy Mountain Way	71/71	BegaValley(A)	Vehicles	70%
Kings Highway	46/46	Eurobodalla(A)	Horticulture	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Jarvis Bay Road	2/42	Shoalhaven(C)	Construction	15%
Snowy Mountain Way	0/71	0	0	0%
Kings Highway	1/46	Eurobodalla(A)	Construction	1%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Jarvis Bay Road	15,818	14,869	0.10	299	949	0.22
Snowy Mountain Way	8,603	8,603	0.06	311	-	-
Kings Highway	14,167	14,132	0.12	299	35	0.00

### Weekly impact of top commodities

Jervis Bay Road	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	8,267	100.0%	0.04	21	0.0%	-
General	2,239	100.0%	0.02	30	0.0%	0.00
Construction	2,128	55.6%	0.01	26	44.4%	0
Snowy Mountain Way	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	4,556	100.0%	0.03	33	0.0%	-
Processed Food	1,710	100.0%	0.01	22	0.0%	-
Construction	539	100.0%	0.00	8	0.0%	-
Kings Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	7,109	100.0%	0.05	26	0.0%	-
Construction	1,922	98.4%	0.01	25	1.6%	0.00
General	1,807	100.0%	0.03	41	0.0%	-

### Risk Rating

Risk	Jarvis Bay Road	Snowy Mountain Way	Kings Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	1	0	0
Flooding	3	3	3
Extreme Heat	0.5	0.5	0.5
Landslide	0	0	0
Total	5.5	4.5	4.5

### Vulnerability Rating

Jarvis Bay Road	Very Low
Snowy Mountain Way	Very Low
Kings Highway	Very Low

### Vulnerability Rating

Princes Highway NSW	Very Low
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## Princes Highway Vic

The Princes Highway Vic KFR is a 313km freight route located in Victoria. It continues from the Princes Freeway West at Colac to Mount Gambier in southeast South Australia via Portland. Wood product transport represents approximately 55% of the total freight task, with movements from properties to ports being a large proportion. Processed food adds 15% to the freight task, mostly collection of raw milk for dairy processing. Cropping contributes 10% to the freight task, with movements from silos to stock feed manufactures and on to properties.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Henty Highway	87,069	87,055	0.63	251	14	0.01
Dartmoor-Hamilton Road	55,841	55,771	0.32	108	70	0.14
Glenelg Highway	49,308	49,275	0.13	43	32	0.07

Weekly impact of top commodities

Commodity	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Henty Highway						
Wood Product	79,810	100.0%	0.59	26	0.0%	0
Cropping	3,619	99.8%	0.01	21	0.2%	0.00
Fuel	1,491	99.7%	0.01	29	0.3%	0
Dartmoor-Hamilton Road						
Wood Product	38,906	99.9%	0.25	20	0.1%	0
Fuel	5,539	100.0%	0.03	9	0.0%	-
Processed Food	4,277	100.0%	0.02	12	0.0%	-
Glenelg Highway						
Wood Product	34,007	100.0%	0.09	0	0.0%	-
Fuel	5,539	100.0%	0.01	3	0.0%	-
Livestock	3,104	99.6%	0.01	0	0.4%	0.07

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Henty Highway	30/30	Glenelg(S)	Vehicles	100%
Dartmoor-Hamilton Road	110/112	Mount Gambier(C)	Construction	100%
Glenelg Highway	107/107	Mount Gambier(C)	Construction	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Henty Highway	2/30	Glenelg(S)	Fuel	0%
Dartmoor-Hamilton Road	11/112	Gannawarra(S)	Livestock	1%
Glenelg Highway	5/107	Grant(DC)	Cropping	2%

Risk Rating

Risk	Henty Highway	Dartmoor-Hamilton Road	Glenelg Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1	1	1
Landslide	0	0	0
Total	5	5	5

Vulnerability Rating

Henty Highway	Very Low
Dartmoor-Hamilton Road	Very Low
Glenelg Highway	Very Low

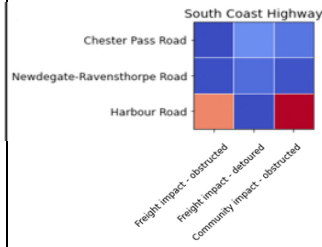
Vulnerability Rating

Princes Highway Vic	Very Low
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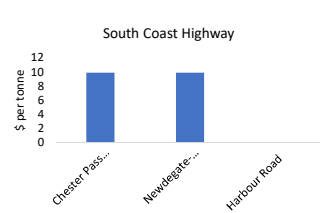
## South Coast Highway

The South Coast Highway KFR is a 467km freight route located in Western Australia. It connects LGAs from Albany to Esperance. Cropping transport represents approximately 80% of the total freight task, with movements from properties to silos and on to ports. Wood product movements add 10%, with movements to ports comprising a large proportion.

### Impact Matrix



### Average detour cost per tonne



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Chester Pass Road	91/93	Albany(C)	Cropping	86%
Newdegate-Ravensthorpe Road	142/143	Esperance(S)	Horticulture	100%
Harbour Road	0/39	0	0	0%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Chester Pass Road	4/93	Plantagenet(S)	Waste	10%
Newdegate-Ravensthorpe Road	7/143	Ravensthorpe(S)	Mining	2%
Harbour Road	39/39	Esperance(S)	Wood Product	100%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Chester Pass Road	48,455	48,395	0.48	532	61	0.08
Newdegate-Ravensthorpe Road	55,281	55,062	0.54	768	219	0.08
Harbour Road	37,186	-	-	-	37,186	47.73

### Weekly impact of top commodities

Commodity	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Chester Pass Road						
Cropping	36,029	99.9%	0.33	28	0.1%	0
Wood Product	7,771	100.0%	0.10	48	0.0%	-
Mining	2,068	100.0%	0.02	56	0.0%	-
Newdegate-Ravensthorpe Road						
Cropping	42,621	99.5%	0.33	30	0.5%	0
Wood Product	4,929	100.0%	0.05	36	0.0%	-
Livestock	2,877	99.9%	0.07	77	0.1%	0.01
Harbour Road						
Cropping	30,851	0.0%	-	-	100.0%	14
Mining	4,295	0.0%	-	-	100.0%	21.61
Fuel	1,103	0.0%	-	-	100.0%	1.76

### Risk Rating

Risk	Chester Pass Road	Newdegate-Ravensthorpe Road	Harbour Road
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Floodfire	2	1	2
Extreme Heat	0.5	1	1
Landslide	0	0	0
Total	3.5	3	4

### Vulnerability Rating

Chester Pass Road	Very Low
Newdegate-Ravensthorpe Road	Very Low
Harbour Road	High

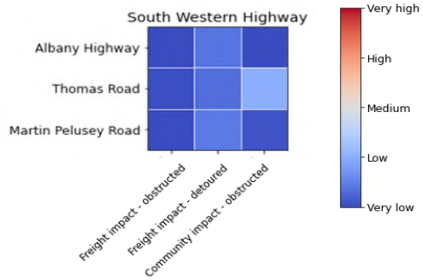
### Vulnerability Rating

South Coast Highway	High
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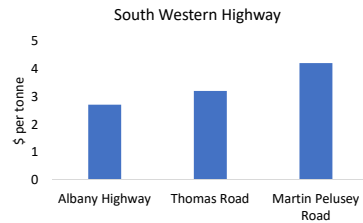
## South Western Highway

The South Western Highway KFR is a 300km freight route located in Western Australia. It connects LGAs from Perth to Manjimup in the southwest. Wood product transport represents approximately 30% of the total freight task, with movements from properties to ports. Cropping movements add 20%, with movements from silos to ports comprising a large proportion. Mining and fuel add a further 10% each to the freight task.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Albany Highway	17,008	17,008	0.05	68	-	-
Thomas Road	39,464	39,103	0.12	30	361	0.28
Martin Pelusey Road	40,219	40,192	0.17	54	27	0.02

Weekly impact of top commodities

Intersection	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Albany Highway	14,107	100.0%	0.03	5	0.0%	-
Cropping	1,121	100.0%	0.00	11	0.0%	-
Construction	502	100.0%	0.00	3	0.0%	-
Livestock	31,154	100.0%	0.10	1	0.0%	-
Thomas Road	2,383	94.9%	0.01	4	5.1%	0.19
Cropping	2,331	89.9%	0.01	2	10.1%	0.07
Fuel	14,291	100.0%	0.07	9	0.0%	-
Construction	14,138	100.0%	0.05	4	0.0%	-
Martin Pelusey Road	3,069	100.0%	0.01	8	0.0%	-
Wood Product						
Mining						
Fuel						

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Albany Highway	79/79	PortHedland(T)	Cropping	100%
Thomas Road	108/108	PortHedland(T)	Cropping	100%
Martin Pelusey Road	88/89	Bassendean(T)	Wood Product	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Albany Highway	0/79	0	0	0%
Thomas Road	5/108	Jerramungup(S)	Fuel	25%
Martin Pelusey Road	2/89	Manjimup(S)	Processed Food	2%

Risk Rating

Risk	Albany Highway	Thomas Road	Martin Pelusey Road
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	2	1	2
Extreme Heat	1	1	1
Landslide	0	0	0
Total	4	3	4

Vulnerability Rating

Albany Highway	Very Low
Thomas Road	Very Low
Martin Pelusey Road	Very Low

Vulnerability Rating

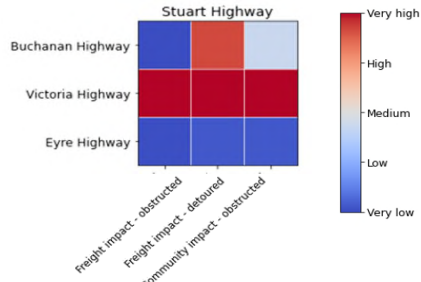
South Western Highway	Very Low
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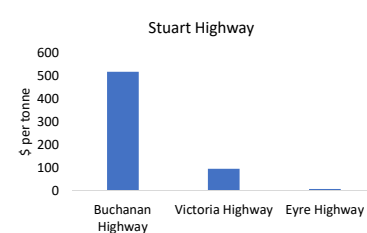
## Stuart Highway

The Stuart Highway KFR is a 2,781km freight route that extends between Port Augusta in South Australia and Darwin in the Northern Territory via Alice Springs. Fuel transport represents approximately 32% of the total freight task. Mining and livestock add a further 20% each. The route provides a critical north-south link with 40% of movements originating at a property or port, and 20% destined to a port.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Buchanan Highway	17,526	17,493	9.02	41,537	33	0.06
Victoria Highway	23,103	22	0.00	551	23,082	107.50
Eyre Highway	15,656	15,560	0.11	287	97	0.15

Weekly impact of top commodities

Buchanan Highway	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Mining	4,808	100.0%	1.94	5,212	0.0%	-
General	3,179	100.0%	1.40	3,957	0.0%	-
Livestock	2,502	99.6%	1.14	4,609	0.4%	0
Victoria Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Mining	5,635	0.0%	-	-	100.0%	22
Fuel	5,298	0.0%	-	-	100.0%	8.33
Livestock	3,380	0.3%	0.00	167	99.7%	19.86
Eyre Highway	Total Tonnes (t)	% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Fuel	7,093	98.6%	0.05	24	1.4%	0
Mining	3,846	100.0%	0.02	15	0.0%	-
Livestock	1,118	100.0%	0.01	14	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Buchanan Highway	84/85	Barkly(R)	Horticulture	100%
Victoria Highway	4/91	Katherine(T)	Waste	9%
Eyre Highway	117/118	CooperPedy(DC)	Processed Food	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Buchanan Highway	4/85	CentralDesert(R)	Construction	43%
Victoria Highway	90/91	Barkly(R)	Horticulture	100%
Eyre Highway	1/118	PortAugusta(C)	Fuel	3%

Risk Rating

Risk	Buchanan Highway	Victoria Highway	Eyre Highway
Cyclones and Storms	1	2	0
Seismicity	1	1	1
Bushfire	1	0	0
Flooding	0	3	3
Extreme Heat	1.5	1.5	1.5
Landslide	0	0	0
Total	4.5	7.5	5.5

Vulnerability Rating

Buchanan Highway	Very Low
Victoria Highway	High
Eyre Highway	Very Low

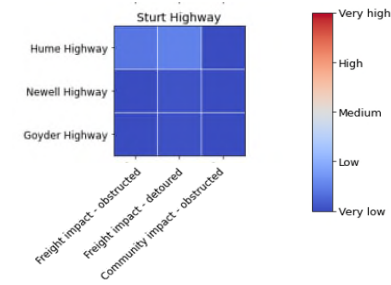
Vulnerability Rating

Stuart Highway	High
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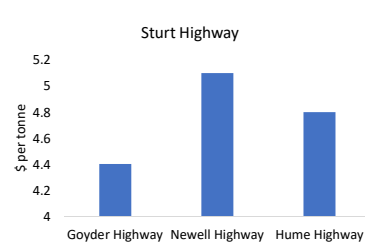
## Sturt Highway

The Sturt Highway KFR is a 1,000km freight route located in southwest New South Wales extending into South Australia. It connects the Hume Highway in New South Wales to Gawler in South Australia. General freight moving between ports, distribution centres and retail contributes 33% to the freight task, while fuel from ports to depots adds a further 25% and wood product contributes 15%.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Goyder Highway	53,698	53,698	0.24	63	-	-
Newell Highway	51,673	51,320	0.26	94	353	0.24
Hume Highway	51,241	51,213	0.24	49	28	0.09

Weekly impact of top commodities

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		% Detoured	Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Goyder Highway						
General	26,096	100.0%	0.13	3	0.0%	-
Fuel	6,828	100.0%	0.02	7	0.0%	-
Horticulture	6,575	100.0%	0.02	6	0.0%	-
Newell Highway						
General	16,101	100.0%	0.06	8	0.0%	-
Horticulture	7,978	100.0%	0.07	12	0.0%	-
Cropping	8,542	96.2%	0.04	15	3.8%	0.10
Hume Highway						
Livestock	1,892	99.3%	0.01	6	0.7%	0
Cropping	3,930	99.7%	0.01	14	0.3%	0.01
Wood product	4,109	100.0%	0.01	12	0.0%	-

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Goyder Highway	238/240	AliceSprings(T)	Cropping	100%
Newell Highway	260/262	Gawler(T)	Vehicles	100%
Hume Highway	192/195	Gawler(T)	Vehicles	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Goyder Highway	0/240	0	0	0%
Newell Highway	6/262	Coolamon(A)	Cropping	2%
Hume Highway	7/195	Shoalhaven(C)	Cropping	2%

Risk Rating

Risk	Goyder Highway	Newell Highway	Hume Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	3	3	3
Extreme Heat	1	1	1
Landslide	0	0	0
Total	5	5	5

Vulnerability Rating

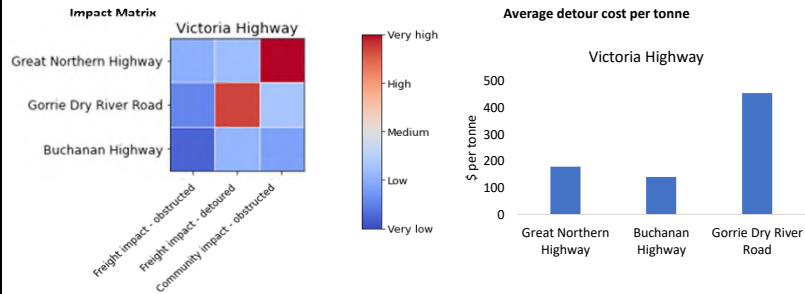
Goyder Highway	Very Low
Newell Highway	Very Low
Hume Highway	Very Low

Vulnerability Rating

Sturt Highway	Very Low
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## Victoria Highway

The Victoria Highway KFR is a 555km freight route located in the Northern Territory. It connects LGAs from the Great Northern Highway west of Kununurra in Western Australia to the Stuart Highway at Katherine in the Northern Territory. Livestock transport represents approximately 25% of the total freight task, with the majority of movements from properties to properties or to export depots. Construction adds a further 20% and fuel and general freight add 15% each to the total freight task.



### Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Great Northern Highway	43/48	Exmouth(S)	General	88%
Buchanan Highway	80/81	HallsCreek(S)	Cropping	100%
Gorrie Dry River Road	80/82	HallsCreek(S)	Cropping	100%

### Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Great Northern Highway	19/48	HallsCreek(S)	Cropping	100%
Buchanan Highway	1/81	VictoriaDaly(R)	Construction	21%
Gorrie Dry River Road	24/82	VictoriaDaly(R)	Fuel	33%

### Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Great Northern Highway	3,143	2,652	0.47	11,639	491	2.17
Buchanan Highway	5,778	5,621	0.78	6,992	157	0.05
Gorrie Dry River Road	6,538	5,943	2.70	32,248	595	3.22

### Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Great Northern Highway						
General	1,058	99.9%	0.12	675	0.1%	0
Fuel	762	67.9%	0.08	828	32.1%	0.39
Livestock	586	65.1%	0.10	2,511	34.9%	1
Buchanan Highway						
Construction	1,329	88.4%	0.23	1,760	11.6%	0
Livestock	1,175	99.7%	0.18	1,068	0.3%	0.02
Fuel	1,133	100.0%	0.12	1,146	0.0%	-
Gorrie Dry River Road						
Livestock	1,682	69.3%	0.57	4,555	30.7%	3
Construction	1,505	100.0%	0.86	5,711	0.0%	-
Fuel	1,206	93.9%	0.45	4,893	6.1%	0.12

### Risk Rating

Risk	Great Northern Highway	Buchanan Highway	Gorrie Dry River Road
Cyclones and Storms	2	2	2
Seismicity	1	1	1
Bushfire	2	2	2
Flooding	0	0	0
Extreme Heat	1.5	1.5	1.5
Landslide	2	0	0
Total	8.5	6.5	6.5

### Vulnerability Rating

Great Northern Highway	Low
Buchanan Highway	Very Low
Gorrie Dry River Road	Very Low

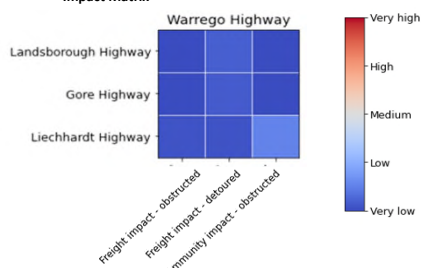
### Vulnerability Rating

Victoria Highway	Low
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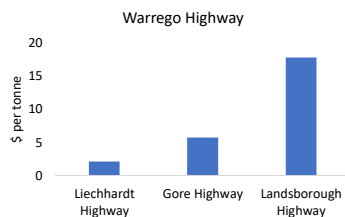
## Warrego Highway

The Warrego Highway KFR is a 754km freight route located in southern Queensland. It connects LGAs from the Landsborough Highway at Morven in the southwest to Ipswich in the southeast. Cropping transport represents approximately 20% of the total freight task with fuel and livestock adding 15% each. Construction, processed food, horticulture and general freight add 10% each to the total freight task.

Impact Matrix



Average detour cost per tonne



Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Liechhardt Highway	222/222	Etheridge(S)	Cropping	100%
Gore Highway	109/109	Etheridge(S)	Cropping	100%
Landsborough Highway	140/140	Boulia(S)	Cropping	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Liechhardt Highway	4/222	WesternDowns(R)	Wood Product	13%
Gore Highway	0/109	0	0	0%
Landsborough Highway	1/140	Maranoa(R)	Livestock	0%

Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Liechhardt Highway	56,192	55,838	0.12	3	353	1.23
Gore Highway	54,679	54,679	0.31	170	-	-
Landsborough Highway	10,755	10,750	0.19	653	5	0.03

Weekly impact of top commodities

	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Liechhardt Highway	56,192	99.9%	0.12	3	0.1%	1.23
Livestock	11,990	99.9%	0.07	14	0.1%	0
Cropping	10,912	99.9%	0.06	16	0.1%	0.00
General	9,292	99.6%	0.06	33	0.4%	1
Gore Highway	54,679	100.0%	0.31	170	0.0%	-
Cropping	14,828	100.0%	0.06	8	0.0%	-
Fuel	10,918	100.0%	0.07	19	0.0%	-
General	9,057	100.0%	0.10	39	0.0%	-
Landsborough Highway	10,755	100.0%	0.19	653	0.0%	-
Livestock	5,159	99.9%	0.09	84	0.1%	0
General	1,725	100.0%	0.05	63	0.0%	-
Fuel	886	100.0%	0.01	87	0.0%	-

Risk Rating

Risk	Liechhardt Highway	Gore Highway	Landsborough Highway
Cyclones and Storms	0	0	0
Seismicity	0	1	0
Bushfire	0	0	0
Flooding	3	3	0
Extreme Heat	1.5	1	1.5
Landslide	0	2	0
Total	4.5	7	1.5

Vulnerability Rating

Liechhardt Highway	Very Low
Gore Highway	Low
Landsborough Highway	Very Low

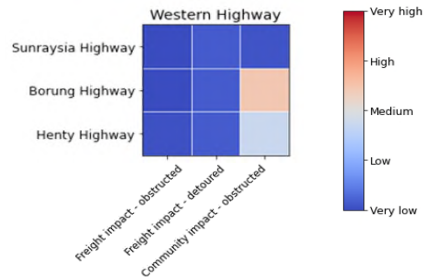
Vulnerability Rating

Warrego Highway	Low
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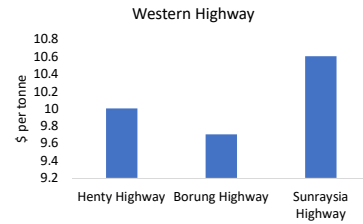
## Western Highway

The Western Highway KFR is a 368km freight route located in Victoria. It connects LGAs from Ballarat to the South Australia border east of Bordertown. Cropping transport represents approximately 35% of the total freight task with fuel and general freight adding 20% each.

Impact Matrix



Average detour cost per tonne



Weekly Freight Impacts

Intersection	Total Tonnes (t)	Detoured			Obstructed	
		Total Tonnes (t)	Total costs (\$m)	Average distance (km)	Total Tonnes (t)	Total Value (\$m)
Henty Highway	77,226	77,015	0.77	330	211	1.63
Borong Highway	73,954	73,925	0.71	298	29	0.14
Sunraysia Highway	69,569	69,569	0.73	314	0	0.00

Weekly impact of top commodities

Commodity	Total Tonnes (t)	% Detoured	Detoured		Obstructed	
			Total costs (\$m)	Average distance (km)	% obstructed	Total Value (\$m)
Henty Highway						
General	25,264	100.0%	0.42	57	0.0%	-
Fuel	17,328	99.1%	0.10	20	0.9%	0.24
Cropping	7,712	100.0%	0.02	10	0.0%	-
Borong Highway						
General	24,643	100.0%	0.39	52	0.0%	-
Fuel	14,585	100.0%	0.09	21	0.0%	-
Cropping	11,826	100.0%	0.03	4	0.0%	0.00
Sunraysia Highway						
General	25,768	100.0%	0.42	54	0.0%	-
Fuel	14,275	100.0%	0.09	22	0.0%	-
Processed Food	6,297	100.0%	0.05	41	0.0%	0.00

Community Impacts (Detoured)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Henty Highway	248/250	Ceduna(DC)	Wood Product	100%
Borong Highway	208/210	Ceduna(DC)	Wood Product	100%
Sunraysia Highway	194/196	Ceduna(DC)	Wood Product	100%

Community Impacts (Obstructed)

	No. of LGAs impacted	Most impacted LGA	Most impacted commodity for LGA	
			Commodity	Relative volumes impacted
Henty Highway	2/250	Horsham(RC)	Vehicles	43%
Borong Highway	1/210	TheCoorong(DC)	Wood Product	61%
Sunraysia Highway	2/196	Ballarat(C)	Mining	2%

Risk Rating

Risk	Henty Highway	Borong Highway	Sunraysia Highway
Cyclones and Storms	0	0	0
Seismicity	1	1	1
Bushfire	0	0	0
Flooding	1	0	3
Extreme Heat	1	1	1
Landslide	0	0	1
Total	3	2	6

Vulnerability Rating

Henty Highway	Very Low
Borong Highway	Very Low
Sunraysia Highway	Very Low

Vulnerability Rating

Western Highway	Very Low
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## The Ghan

This rail breakage point is situated north of Alice Springs on the Ghan line and carries 178,000 annual tonnes of general freight at an average cost of \$106.54/tonne. Shifting from rail to road would see an extra 7,705 trailers on the road network and importantly, the costs would increase significantly for all sectors to an average of \$191.40/tonne. The nearby Stuart Highway carries 14,500 freight trailers per year based on existing freight in TraNSIT. A disruption to the rail link would increase freight along the Stuart Highway by 53%.

### Rail freight summary for The Ghan

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	4,933	666,482	23,813,331	135
Cropping	23	3,461	18,746	148
General	11,523	2,236,849	164,952,885	194
Horticulture	10,917	1,570,612	20,671,191	144
Mining	139,000	11,881,363	1,251,000,000	85
Processed Food	2,121	282,399	9,344,920	133
Vehicles	3,201	1,575,823	80,015,075	492
Wood Product	5,939	711,018	29,696,465	120
<b>Total</b>	<b>177,658</b>	<b>18,928,007</b>	<b>1,579,512,614</b>	<b>107</b>

### Road comparison summary for rail freight for the Ghan

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Construction	4,933	1,024,212	206	208	54
Cropping	23	6,474	1	276	87
General	11,523	3,880,754	867	337	73
Horticulture	10,917	2,902,355	545	266	85
Mining	139,000	21,575,635	5,148	155	82
Processed Food	2,121	493,582	108	233	75
Vehicles	3,201	2,947,483	533	921	87
Wood Product	5,939	1,173,857	297	198	65
<b>Total</b>	<b>177,658</b>	<b>34,004,352</b>	<b>7,705</b>	<b>191</b>	<b>80</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	2
Seismicity	1
Bushfire	1
Flooding	0
Extreme Heat	1.5
Landslide	0
<b>Total</b>	<b>5.5</b>

### Vulnerability Rating

The Ghan	Medium
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## Melbourne – Adelaide Main Line

This rail breakage point is situated between Melbourne and Adelaide near the South Australia-Victoria border (Bordertown). The route carries 1.9 million tonnes of freight annually, including a large amount of general freight and steel. The average cost per tonne is \$112.16. Shifting from rail to road would see an extra 107,108 trailers on the road network and importantly, the costs would increase significantly for all sectors to an average of \$233.86/tonne. There are two nearby alternative routes - the Riddoch/Princess Highway (131,000 trailers per year) and the Western/Dukes Highway (207,000 trailers per year). A disruption to the rail link would increase freight along these two highways by 32%.

### Rail freight summary for Melbourne – Adelaide Main Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	727,578	48,713,770	4,929,460,708	67
Cropping	259,700	5,644,190	133,575,717	22
General	712,523	122,144,491	9,513,064,380	171
Horticulture	68,757	10,072,409	232,776,716	146
Livestock	6,900	266,680	96,600,000	39
Processed Food	115,586	19,094,414	439,625,287	165
Vehicles	20,864	8,498,676	521,600,125	407
<b>Total</b>	<b>1,911,908</b>	<b>214,434,630</b>	<b>15,866,702,933</b>	<b>112</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	1
Bushfire	0
Flooding	3
Extreme Heat	1
Landslide	0
<b>Total</b>	<b>5</b>

### Road comparison summary for rail freight for Melbourne – Adelaide Main Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Construction	727,578	109,705,730	29,893	151	125
Cropping	259,700	16,166,064	10,512	62	186
General	712,523	245,149,718	52,315	344	101
Horticulture	68,757	20,052,717	3,560	292	99
Livestock	6,900	732,501	345	106	175
Processed Food	115,586	38,631,582	7,006	334	102
Vehicles	20,864	16,686,183	3,477	800	96
<b>Total</b>	<b>1,911,908</b>	<b>447,124,495</b>	<b>107,108</b>	<b>234</b>	<b>109</b>

### Vulnerability Rating

Melbourne – Adelaide Main line	Low
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## New South Wales Broken Hill Line

This rail breakage point is situated in western NSW near Ivanhoe on the Broken Hill Line, which is part of the Transcontinental Line. It carries 1.9 million tonnes of freight annually, largely general freight with an average cost of \$140.36/tonne. This freight would take an alternative rail route via Melbourne rather than be moved onto road.

### Rail freight summary for New South Wales Broken Hill Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	350,484	\$43,227,013	\$2,441,350,785	\$123.34
Cropping	22,831	\$3,170,662	\$13,339,735	\$138.88
General	576,528	\$133,864,994	\$8,159,120,564	\$232.19
Horticulture	50,741	\$8,599,989	\$215,204,708	\$169.49
Mining	625,852	\$34,870,967	\$673,851,852	\$55.72
Processed Food	67,099	\$10,729,835	\$258,365,650	\$159.91
Vehicles	13,292	\$4,894,198	\$332,308,750	\$368.20
Wood Product	155,164	\$21,996,711	\$248,261,680	\$141.76
<b>Total</b>	<b>1,861,990</b>	<b>\$261,354,370</b>	<b>\$12,341,803,724</b>	<b>\$140.36</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	0
Bushfire	0
Flooding	0
Extreme Heat	1.5
Landslide	0
<b>Total</b>	<b>1.5</b>

### Alternative rail route comparison summary for rail freight for New South Wales Broken Hill Line

Sector	Total Tonnes (t)	Total Cost (\$)	Cost per Tonne (\$)	% change from base
Construction	350,484	\$47,811,139	\$136.41	11
Cropping	22,831	\$3,445,043	\$150.90	9
General	576,528	\$147,475,041	256	10
Horticulture	50,741	\$9,318,727	184	8
Mining	625,852	\$59,964,761	96	72
Processed Food	67,099	\$12,207,520	182	14
Vehicles	13,292	\$5,397,798	\$406.08	10
Wood Product	155,164	\$23,838,877	\$153.64	8
<b>Total</b>	<b>1,861,990</b>	<b>\$309,458,907</b>	<b>166</b>	<b>18</b>

### Vulnerability Rating

New South Wales Broken Hill Line	Very Low
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## New South Wales Main South Line

This rail breakage point is situated southwest of Sydney near Goulburn on the Main South Line between Sydney and Albury. It has connections to many branch lines and terminals along its length. It carries 14.9 million tonnes of annual freight, largely coal and minerals, and also large amounts of general freight with an average cost of \$32.21/tonne. This freight would take an alternative rail route rather than be moved onto road. The impact on increased freight costs is highly variable since it depends on the detour required for each commodity. Waste has high additional costs since the original short trip is from Sydney to Goulburn. A detour via the Blue Mountains is much longer. For cropping, the average additional distance from the grain silos via Newcastle or Blue Mountains is short, thus leading to a minimal increase in transport costs.

### Rail freight summary for New South Wales Main South Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	1,302,051	61,661,186	5,361,254,953	47
Cropping	5,378,104	145,679,883	2,939,621,385	27
General	764,321	75,114,080	8,107,988,871	98
Horticulture	35,492	3,017,240	144,841,952	85
Mining	6,600,000	138,323,048	1,056,000,000	21
Processed Food	75,104	6,242,793	486,921,450	83
Vehicles	25,401	6,965,613	635,023,675	274
Waste	736,128	43,448,274	73,612,800	59
Wood Product	6,500	254,983	9,750,000	39
<b>Total</b>	<b>14,923,100</b>	<b>480,707,102</b>	<b>18,815,015,085</b>	<b>32</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	2
Bushfire	0
Flooding	3
Extreme Heat	1
Landslide	0
<b>Total</b>	<b>6</b>

### Alternative rail route comparison summary for rail freight for New South Wales Main South Line

Sector	Total Tonnes (t)	Total Cost (\$)	Cost per Tonne (\$)	% change from base
Construction	1,302,051	90,842,707	70	1
Cropping	5,378,104	150,753,349	28	0
General	764,321	79,889,497	105	0
Horticulture	35,492	3,304,020	93	0
Mining#				
Processed Food	75,104	6,824,027	91	0
Vehicles	25,401	6,784,906	267	0
Waste	736,128	88,586,974	120	1
Wood Product	6,500	301,759	46	0
<b>Total</b>	<b>8,323,100</b>	<b>427,287,239</b>	<b>51</b>	<b>1</b>

# 6.6 million tonnes of mining was obstructed unable to reach the ports.

### Vulnerability Rating

New South Wales Main South Line	Medium
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## New South Wales Main West Line

This rail breakage point is situated west of Sydney, near Orange on the Main West Line. The route carries 8.2 million tonnes of annual freight, including a large range of mining and general freight with an average cost of \$40.77/tonne. This freight would take an alternative rail route rather than be moved onto road. Given some mining trips can not reach the port using a suitable rail path with a disruption to the New South Wales Main West Line, the increase in transport costs per tonne (3.3%) was calculated without the mining trips. The long distance containerised freight commodities (general, horticulture, construction) have minimal impact since freight to/from Sydney could take the southern line via Cootamundra.

### Rail freight summary for New South Wales Main West Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	350,484	\$43,227,013	\$2,441,350,785	\$123.34
Cropping	309,478	\$9,882,263	\$148,704,637	\$31.93
General	403,381	\$99,584,891	\$6,236,767,714	\$246.88
Horticulture	46,469	\$7,998,786	\$199,813,594	\$172.13
Mining	6,899,000	\$145,962,606	\$3,747,000,000	\$21.16
Processed Food	26,807	\$2,575,721	\$180,876,393	\$96.08
Vehicles	7,711	\$3,062,549	\$192,767,800	\$397.18
Wood Product	141,687	\$21,395,881	\$226,698,464	\$151.01
<b>Total</b>	<b>8,185,016</b>	<b>\$333,689,710</b>	<b>\$13,373,979,385</b>	<b>\$40.77</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	1
Bushfire	0
Flooding	0
Extreme Heat	0.5
Landslide	0
<b>Total</b>	<b>1.5</b>

### Alternative rail route comparison summary for rail freight for New South Wales Main West Line

Sector	Total Tonnes (t)	Total Cost (\$)	Cost per Tonne (\$)	% change from base
Construction	350,484	\$43,726,146	\$124.76	1
Cropping	309,478	\$12,067,467	\$38.99	22
General	403,381	\$102,436,534	254	3
Horticulture	46,469	\$8,096,174	174	1
Mining#	299,000	\$9,123,449	31	44
Processed Food	26,807	\$2,838,992	106	10
Vehicles	7,711	\$3,170,525	\$411.18	4
Wood Product	141,687	\$21,645,365	\$152.77	1
<b>Total</b>	<b>1,585,016</b>	<b>\$203,104,653</b>	<b>128</b>	<b>3.3 (excl mining)</b>

# 6.6 million tonnes of mining was obstructed unable to reach the ports.

### Vulnerability Rating

New South Wales Main West Line	High
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## New South Wales North Coast Line

This rail breakage point is situated north of Sydney, around Gosford on the New South Wales North Coast Line which connects Sydney and south/west New South Wales to Queensland via Brisbane. It carries 2.5 million tonnes of freight annually across a wide range of general freight and construction (steel) with an average cost of \$87.95/tonne. Shifting from rail to road would see an extra 130,788 trailers on the road network and importantly, the costs would increase significantly for all sectors to an average of \$165.98/tonne. The nearby Pacific Motorway carries 322,000 trailers northbound and 263,000 southbound per year, based on current freight in TraNSIT. A rail disruption would increase freight along the Pacific Motorway by 22%.

### Rail freight summary for New South Wales North Coast Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	1,166,417	64,418,640	8,150,637,889	55
Cropping	78,308	3,273,101	29,938,435	42
General	906,859	112,565,600	9,369,944,600	124
Horticulture	66,886	8,489,539	285,909,603	127
Livestock	500	30,071	7,000,000	60
Mining	94,000	2,548,072	846,000,000	27
Processed Food	91,523	8,371,313	613,868,135	91
Vehicles	32,736	8,858,520	818,388,125	271
Wood Product	89,203	13,638,781	142,525,493	153
<b>Total</b>	<b>2,526,432</b>	<b>222,193,637</b>	<b>20,264,212,279</b>	<b>88</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	1
Bushfire	1
Flooding	0
Extreme Heat	1
Landslide	0
<b>Total</b>	<b>3</b>

### Road comparison summary for rail freight for New South Wales North Coast Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Construction	1,166,417	129,092,965	46,728	111	100
Cropping	78,308	9,503,327	3,473	121	190
General	906,859	203,081,699	59,958	224	80
Horticulture	66,886	15,906,847	3,340	238	87
Livestock	500	64,122	25	128	113
Mining	94,000	4,870,434	3,481	52	91
Processed Food	91,523	15,090,054	4,747	165	80
Vehicles	32,736	15,795,768	5,456	483	78
Wood Product	89,203	25,924,587	3,579	291	90
<b>Total</b>	<b>2,526,432</b>	<b>419,329,803</b>	<b>130,788</b>	<b>166</b>	<b>89</b>

### Vulnerability Rating

New South Wales North Coast Line	Low
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## Queensland Great Northern Line

This rail breakage point is situated west of Townsville on the Mt Isa to Townsville. The route connects to numerous connectors and terminals and mainly carries 2.3 million tonnes of mineral freight annually with an average cost of \$41.45/tonne. It also provides a cattle service. Shifting from rail to road would see an extra 85,606 trailers on the road network (largely travelling east) and importantly, the costs would increase significantly for the mining sector. The nearby point on the Flinders Highway carries 93,511 annual trailers (both directions based on existing freight in TraNSIT). Disruption to the rail network would increase the road traffic by 92%.

### Rail freight summary for Queensland Great Northern Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Livestock	7,680	\$1,554,334	\$53,760,000	\$202.39
Minerals	2,301,000	\$94,130,991	\$6,612,000,000	\$40.91
<b>Total</b>	<b>2,308,680</b>	<b>\$95,685,325</b>	<b>\$6,665,760,000</b>	<b>\$41.45</b>

### Road comparison summary for rail freight for Queensland Great Northern Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Livestock	7,680	\$1,345,415	384	\$175.18	-16
Minerals	2,301,000	\$139,086,275	85,222	\$60.45	32
<b>Total</b>	<b>2,308,680</b>	<b>\$140,431,691</b>	<b>85,606</b>	<b>\$60.83</b>	<b>32</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	3
Seismicity	0
Bushfire	1
Flooding	0.5
Extreme Heat	0
Landslide	0
<b>Total</b>	<b>4.5</b>

### Vulnerability Rating

Queensland Great Northern Line	High
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## Queensland North Coast Line

This breakage point is situated north of Brisbane around Yandina on the Queensland North Coast Line. The route connects to numerous connectors and terminals and carries 143,744 tonnes of freight annually, with a wide range of agriculture and general freight with an average cost of \$88.24/tonne. Shifting from rail to road would see an extra 8,830 trailers on the road network and importantly, the costs would increase significantly for all sectors. The nearby Bruce Highway carries 165,000 northbound and 107,000 south bound freight trailers per year based on existing freight in TraNSIT. A disruption to the rail link would only increase road freight by 3.1%.

### Rail freight summary for Queensland North Coast Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	2,083	\$126,512	\$14,583,338	\$60.73
Cropping	940	\$57,822	\$475,525	\$61.51
General	45,399	\$3,989,855	\$622,359,012	\$87.88
Horticulture	34,640	\$2,225,789	\$95,013,518	\$64.25
Livestock	23,824	\$3,305,999	\$147,770,858	\$138.77
Processed Food	29,713	\$1,764,176	\$180,116,839	\$59.37
Vehicles	5,708	\$1,129,369	\$142,689,950	\$197.87
Wood Product	1,438	\$84,746	\$6,772,570	\$58.95
<b>Total</b>	<b>143,744</b>	<b>\$12,684,269</b>	<b>\$1,209,781,610</b>	<b>\$88.24</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	2
Seismicity	1
Bushfire	0
Flooding	0.5
Extreme Heat	0
Landslide	0
<b>Total</b>	<b>3.5</b>

### Road comparison summary for rail freight for Queensland North Coast Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Construction	2,083	\$176,998	83	\$84.96	40
Cropping	940	\$94,216	43	\$100.22	63
General	45,399	\$7,038,026	3,235	\$155.02	76
Horticulture	34,640	\$3,964,399	1,772	\$114.45	78
Livestock	23,824	\$3,426,330	1,184	\$143.82	4
Processed Food	29,713	\$3,041,374	1,489	\$102.36	72
Vehicles	5,708	\$1,948,929	951	\$341.47	73
Wood Product	1,438	\$145,008	72	\$100.87	71
<b>Total</b>	<b>143,744</b>	<b>\$19,835,281</b>	<b>8,830</b>	<b>\$137.99</b>	<b>56</b>

### Vulnerability Rating

Queensland North Coast Line	Low
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## Queensland Western System (West Moreton)

This rail breakage point is situated west of Brisbane in Lockyer Valley on the Queensland Western System (West Moreton) Line. The route connects to other lines servicing the southwest of Queensland to Brisbane. It carries a large amount of coal, grains and cattle totalling 5.1 million tonnes of annual freight with an average cost of \$20.55/tonne. Shifting from rail to road would see an extra 189,772 trailers (largely eastbound) on the road network and an increase in costs for all sectors. The nearby Warrego Highway carries 177,500 trailers annually in an eastbound direction based on existing freight in TransIT. A disruption to the rail link would increase freight by 107% on the Warrego Highway.

### Rail freight summary for Queensland Western system Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Coal	4,420,000	\$88,423,820	\$707,200,000	\$20.01
Grains	631,979	\$15,386,999	\$239,094,869	\$24.35
<b>Total</b>	<b>5,051,979</b>	<b>\$103,810,819</b>	<b>\$946,294,869</b>	<b>\$20.55</b>

### Road comparison summary for rail freight for Queensland Western system Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Coal	4,420,000	\$111,097,184	163,704	\$25.14	20
Grains	631,979	\$31,986,795	26,068	\$50.61	52
<b>Total</b>	<b>5,051,979</b>	<b>\$143,083,979</b>	<b>189,772</b>	<b>\$28.32</b>	<b>27</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	1
Bushfire	0
Flooding	0
Extreme Heat	1
Landslide	0
<b>Total</b>	<b>2</b>

### Vulnerability Rating

Qld Western system (West Moreton)	High
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## South Australia Transcontinental Line

This rail breakage point is situated northwest of Port Augusta, near Pimba on the Transcontinental Line and carries 2.2 million tonnes of annual freight , predominately general freight of which 85,000 tonnes travel to Darwin. The average cost per tonne is \$194.21. Shifting from rail to road would see an extra 141,005 trailers on the road network and importantly, the costs would increase significantly for all sectors to an average of \$400.23/tonne. The nearby Eyre Highway carries 106,000 freight trailers annually (both directions) based on existing freight in TransIT. A disruption to the rail link would increase freight along the Eyre Highway by 133%.

### Rail freight summary for South Australia Transcontinental Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	373,496	52,433,610	2,296,928,081	140
Cropping	37,658	5,378,211	25,052,423	143
General	1,164,382	264,672,493	16,863,303,328	227
Horticulture	153,157	22,681,145	563,325,857	148
Livestock	13,700	1,555,513	191,800,000	114
Mining	25,000	1,124,648	225,000,000	45
Processed Food	182,281	30,703,972	786,550,895	168
Vehicles	35,321	16,160,363	883,036,250	458
Wood Product	175,826	24,935,904	315,660,700	142
<b>Total</b>	<b>2,160,821</b>	<b>419,645,858</b>	<b>22,150,657,534</b>	<b>194</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	1
Bushfire	0
Flooding	0
Extreme Heat	1.5
Landslide	0
<b>Total</b>	<b>2.5</b>

### Road comparison summary for rail freight for South Australia Transcontinental Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Construction	373,496	130,679,221	16,455	350	149
Cropping	37,658	15,632,041	1,827	415	191
General	1,164,382	530,366,058	88,746	455	100
Horticulture	153,157	43,792,302	7,785	286	93
Livestock	13,700	2,910,708	685	212	87
Mining	25,000	1,671,131	926	67	49
Processed Food	182,281	61,154,995	11,076	336	99
Vehicles	35,321	31,880,037	5,887	903	97
Wood Product	175,826	46,734,969	7,619	266	87
<b>Total</b>	<b>2,160,821</b>	<b>864,821,463</b>	<b>141,005</b>	<b>400</b>	<b>106</b>

### Vulnerability Rating

South Australia Transcontinental line	High
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## Tasmania Main Line

This rail breakage point is situated halfway between Hobart and Launceston on the Tasmanian Main Line. It carries 70,000 tonnes of annual freight at an average cost of \$19.20/tonne. Shifting from rail to road would see an extra 3,610 trailers on the road network and importantly, the costs would increase for all sectors to an average of \$23.98/tonne. The nearby Midland Highway carries 101,000 freight trailers per annum (both directions), based on existing freight in TraNSIT. A disruption to the rail line would increase freight along the Midland Highway by 3.6%.

### Rail freight summary for Tasmania Main Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	12,034	\$230,329	\$2,410,213	\$19.14
Wood Product	57,805	\$1,110,597	\$73,778,539	\$19.21
Total	69,839	\$1,340,926	\$76,188,751	\$19.20

### Road comparison summary for rail freight for Tasmania Main Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Construction	12,034	\$287,308	620	\$23.88	25
Wood Product	57,805	\$1,387,604	2,990	\$24.01	25
Total	69,839	\$1,674,912	3,610	\$23.98	25

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	1
Bushfire	0
Flooding	0
Extreme Heat	0.5
Landslide	0
Total	1.5

### Vulnerability Rating

Tasmania Main Line	Very Low
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## Victoria North East Line

This rail breakage point is situated north of Melbourne near Seymour on the Victorian North East Line, which runs between Melbourne and Albury. The route carries 3.4 million tonnes of annual freight including general freight and steel, with an average cost of \$59.13/tonne. Shifting from rail to road would see an extra 170,119 trailers on the road network and importantly, the costs would increase significantly for all sectors to an average of \$88.81/tonne. The nearby Hume Highway carries 252,000 and 361,000 trailers per annum based on existing freight in TraNSIT. A disruption to the rail network would increase freight along the Hume Highway by 25%.

### Rail freight summary for Victoria North East Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	944,751	55,295,679	5,228,534,953	59
Cropping	622,441	21,075,138	883,105,529	34
General	972,909	83,726,132	10,634,945,578	86
Horticulture	35,492	3,017,242	144,843,017	85
Livestock	417	8,878	1,653,774	21
Processed Food	188,879	9,566,946	1,025,900,354	51
Vehicles	26,269	7,029,473	656,716,375	268
Wood Product	624,500	22,252,805	3,099,750,000	36
<b>Total</b>	<b>3,415,657</b>	<b>201,972,293</b>	<b>21,675,449,580</b>	<b>59</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	1
Bushfire	0
Flooding	3
Extreme Heat	1
Landslide	0
<b>Total</b>	<b>5</b>

### Road comparison summary for rail freight for Victoria North East Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Construction	944,751	70,736,658	39,004	75	28
Cropping	622,441	30,550,327	26,560	49	45
General	972,909	142,402,935	60,346	146	70
Horticulture	35,492	5,322,982	1,762	150	76
Livestock	417	18,726	20	45	111
Processed Food	188,879	15,134,179	9,662	80	58
Vehicles	26,269	12,325,017	4,378	469	75
Wood Product	624,500	26,845,908	28,386	43	21
<b>Total</b>	<b>3,415,657</b>	<b>303,336,733</b>	<b>170,119</b>	<b>89</b>	<b>50</b>

### Vulnerability Rating

Victoria North East Line	Low
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## Western Australian Transcontinental Line

This rail breakage point is situated west of Perth, near Toodyay on the Transcontinental Line and carries 12.7 million tonnes of annual freight, largely iron ore and grains, and important general freight. The average cost per tonne is \$47.79. Shifting from rail to road would see an extra 543,933 trailers on the road network and importantly, the costs would increase significantly for all sectors to an average of \$91.29/tonne. The nearby Great Eastern Highway carries 201,000 freight trailers per annum (both directions) based on freight in TraNSIT. A disruption to the rail link would increase freight along the Great Eastern Highway by 271%. This is largely due to large volumes of mining freight having to switch to road, which is unlikely to occur in practice due to the large vehicle fleet requirements.

### Rail freight summary for Western Australian Transcontinental Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Value (\$)	Cost per Tonne (\$)
Construction	368,563	51,767,129	2,273,114,750	140
Cropping	5,197,896	72,497,547	2,605,164,599	14
General	1,152,859	262,435,643	16,698,350,443	228
Horticulture	142,239	21,110,533	542,654,666	148
Livestock	13,700	1,555,513	191,800,000	114
Mining	5,400,000	126,290,269	702,000,000	23
Processed Food	180,159	30,421,573	777,205,975	169
Vehicles	32,121	14,584,540	803,021,175	454
Wood Product	169,887	24,224,886	285,964,235	143
<b>Total</b>	<b>12,657,425</b>	<b>604,887,633</b>	<b>24,879,275,843</b>	<b>48</b>

### Risk Rating

Risk	Rating
Cyclones and Storms	0
Seismicity	2
Bushfire	1
Flooding	3
Extreme Heat	1.5
Landslide	0
<b>Total</b>	<b>7.5</b>

### Road comparison summary for rail freight for Western Australian Transcontinental Line

Sector	Total Tonnes (t)	Total Cost (\$)	Total Extra Trailers	Cost per Tonne (\$)	% change from base
Construction	368,563	119,453,596	16,249	324	131
Cropping	5,197,896	158,908,200	208,236	31	119
General	1,152,859	559,404,577	87,879	485	113
Horticulture	142,239	43,608,090	7,240	307	107
Livestock	13,700	4,482,491	685	327	188
Mining	5,400,000	125,765,859	200,000	23	0
Processed Food	180,159	64,457,241	10,968	358	112
Vehicles	32,121	30,911,314	5,353	962	112
Wood Product	169,887	48,461,903	7,322	285	100
<b>Total</b>	<b>12,657,425</b>	<b>1,155,453,271</b>	<b>543,933</b>	<b>91</b>	<b>91</b>

### Vulnerability Rating

Western Australian Transcontinental line	Very High
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