

BUSHFIRE



Figure 1: Remnant Blue Gum High Forest Adjacent to Site

Remnant Blue Gum Gigh Forest extends along Blue Gum Creek. It splits at the junction of Pockley Avenue at he bottom of MacLaurin Parade to form two tributaries – one between Nola Road and Corona Avenue, and the second between the Rifleway and Pockley Avenue up too Larkin Street. The area at the corner of Kings Ave and MacLaurin Pde is Council owned.and well maintained. The vegetation has many significant tall trees consistent with the species found in Blue Gum High Forest. Thus it presents a significant bushfire risk as the terrain is steeply sloping towards the Pacific Highway.

BUSHFIRE EVACUATION RISK

The Environmental Impact Statement Infill Affordable Housing, 2-16 Pockley Avenue, Roseville dated 17 April 2025 states

“7.20 Bushfire Risk

The site is not identified as being bushfire prone land. Being located in an urbanised and well established residential suburb, **there is a low risk of bushfire**. Therefore, a Bushfire Impact Assessment has not been prepared for this SSDA.”

The risk is real. This statement is contrary to what is clearly shown in the simulation. The consequences would be diabolic. The outcome during and after a bushfire would be similar to the recent experiences in Los Angeles.

Submission on 2,4,6,8,10,12,14,16 Pockley Ave, Roseville

Project ID: SSD-77825469

In 1994 a bushfire threatened the area with 12 houses lost. The fire started in Lane Cove National Park east of De Burghs Bridge and spread quickly to the end of Grosvenor Road before advancing up the valley of Blue Gum Creek. On the Friday evening around 8.45pm many residents in Alexander Parade, Roseville were directed to evacuate, and others directed to be prepared for evacuation. There was a lack of water pressure for the fire brigades, multiple helicopters emptied all the swimming pools and insufficient pressure to extinguish embers by hose, so buckets had to be used. Only a wind change late Saturday saved further destruction as it blew back on the fire, thereby helping to contain it. The Mosman Fire Brigade was active on the Sunday morning at the end of Findlay Avenue where fences had been blackened.

Having lived through the 1994 bushfire and with climate change accelerating it's **not a matter of if, but when will it happen again.** It's probably sooner than thought.

The bushfire simulation clearly [here](#) shows the evacuation risk as exit roads are blocked by fire. Ember spread is deemed to be 400m but the experiences in Hobart (1967), Canberra (2003) and Los Angeles (2025) show otherwise.



Figure 2: Bushfire Closing Exit Roads Kings Avenue, MacLaurin Parade, Pockley Avenue

Figure 2 clearly shows a bushfire encroaching the development site. At this stage access for emergency vehicles would be denied to housing in Alexander Parade. Evacuation access is closed off.

Access from the Pacific Highway is by narrow two and three lane roads - Findlay Avenue, Corona Avenue and MacLaurin Parade. Street parking reduces the three lanes to single lane roads. The Findlay Avenue link to Alexander Parade will be blocked by fire reducing access to MacLaurin Parade and Corona Avenue.

Do assessors want to explain to an enquiry why their decision was made? Or worse stand in front of the coroner and explain?

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The focus of the paper by Thomas Cova (2005) "Public Safety in the Urban-Wildland Interface: Should Fire-Prone Communities Have a Maximum Occupancy?" is evacuation egress or accessibility out of an area in an evacuation.

For areas with 300-600 dwellings the Minimum number of exit roads is 3.



Figure 3: Bushfire Advancing up Nola Rd to Larkin & along Pockley

Action Review Bushfire and Evacuation Risks in light of simulation, past experience and access issues

TRAFFIC CONSIDERATIONS

The Traffic Report is largely based on fiction. Referring to the Pacific Highway states

"It typically carries three traffic lanes in each direction in the vicinity of the site"

On site inspection would have shown the "expert" that there are only 2 lanes north bound in the vicinity of the site. Inspection of Figures 3 and 6 show only two lanes northbound.

It further claims that the station can be accessed in 3 minutes by walking, Walking at 4.9 km/hr to the pedestrian traffic lights opposite the station entrance takes 4 min 10 sec to which the traffic light wait time of 1 min 10 sec and walk to the station across a further 1 min minimum must be added. Thus the actual walking time to the station is 6 min 20sec.

The **gradient Pockley to Larkin intersection is 17 %** and steeper at this intersection than the average.

Pacific Highway access is via Findlay Avenue, Corona Avenue and MacLaurin Parade. Corona Avenue is left turn only at traffic lighted Boundary Street, Findlay Avenue is unlighted but enables left and right turns on to three laned Pacific Highway. However this intersection is on a blind corner so oncoming traffic is not easily seen. A right turn across three north bound lanes into three lanes of quickly moving south bound traffic on the Highway is hazardous and rarely used.

The intersection of MacLaurin Parade and the Pacific Highway is traffic lighted. However this intersection is blocked by stationary southbound traffic from Boundary Street to MacLaurin

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Parade. At AM Peak Hour the only way to turn right from MacLaurin Parade is to drive into the intersection partially blocking it for north bound traffic.

The severe failure of the report is to amalgamate the traffic effect of developments under construction and the developments proposed being 2-16 Pockley Avenue, 2,4 Larkin St & 1, 3 5 Pockley Ave (SSD-77829461) and 7,9,11 Pockley Ave (Ku-ring-gai Council eDA0189/25). There are 363 existing dwellings with 553 car spaces to which an additional 404 units and 686 car spaces totalling 766 Dwellings and 1,239 car spaces are to be added. (Appendix Table 1)

The report merely states

“That projected change in the traffic generation potential of the site as a consequence of the development proposal is minimal and will clearly **not have any unacceptable traffic implications** in terms of road network capacity.”

A traffic count was conducted on 11 June 2025 to establish the current Level of Service of this intersection in the AM Peak, to which the effect of the additional units was evaluated. The Report adopted a traffic per dwelling generation factor of 0.19 based on the assumption that residents would use public transport. Using public transport to work areas like Forestville, Dee Why, Manly & Borth Ryde is impractical. The ABS 2021 Census determined for this part of Ku-ring-gai that the modal split between private vehicle and public transport was 26% . This factor has been used in evaluating future intersection performance.

The MacLaurin/Highway intersection at AM Peak Hour currently operates with average vehicle delay of 214 seconds - an RTA Level of Service (LOS) F – highly congested conditions.

The additional units will further degrade the operation of this intersection increasing the average AM Peak Hour delay. These effects are shown in tables in the Appendix.



Figure 5: Blocked AM Peak Hour
MacLaurin/Highway Intersection
4 of 7

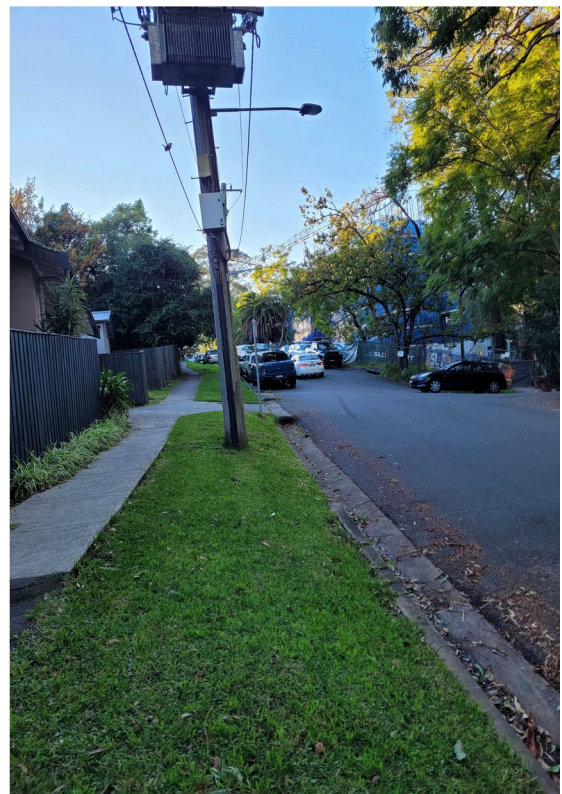


Figure 4: Nola Road Intersection MacLaurin
Pde at Vehicle Entrance/Exit

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Findlay Avenue, Alexander Parade, Kings Avenue and MacLaurin Parade are the 565 AM/PM school bus route – another omission in the Traffic Report. If the delays at the MacLaurin/Highway intersection increase the route will be abandoned thereby creating more peak hour traffic exacerbating the traffic congestion at the intersection.

The development vehicle entrance is at the intersection of MacLaurin Parade and Nola Road where there is a bend in MacLaurin Pde. The road narrows to two lanes at this intersection.. With parked cars MacLaurin has one trafficable lane. The left downhill lane slopes towards the Nola Road level. Cars exiting left will have little vision of downhill traffic until well out of the exit to MacLaurin Parade. For a vehicle exiting, the parked cars adjacent to the exit and the bend in MacLaurin will severely hamper visibility of vehicles descending MacLaurin Parade thereby promoting accidents.

There is no footpath in Larkin Street at street level, only 1.8 m to 2 m above street level on the Highway side. At the MacLaurin/Larkin intersection there are 9 steps up to the MacLaurin footpath. Parents with child strollers must use the road until Larkin Lane amongst traffic.

Given the very limited on street parking there needs to be more visitor parking given that residents in two other developments will be scrambling for street parking. Many of the 2 bedroom units will be rented with the occupants unrelated to each, thereby creating a high proportion of 2 cars per unit where the design allowance is 1. Visitor parking is 10.9% of the total – inadequate.

Action: Redesign to have the entrance in Pockley Avenue to remove yhr accident promoting arrangement.

CONSTRUCTION TRAFFIC



Figure 6: Demolished Traffic Light MacLaurin Pacific Highway Intersection

Construction traffic must enter the site from Pockley Avenue as reversing into the site with trailers will have a serious impact on access to the residential areas especially at peak hours.

Currently delays of 21 to 25 minutes with the excavation trucks at the Roseville Memorial Club construction site are not unusual.

DESIGN

The design proposal is an overdevelopment of the site with inadequate deep soil planting. The Landscape plans show tall trees like blue gums and angophoras when mature. The setback from Pockley Avenue is shown as 10 m but that is from the site boundary to the internal surface of the facade. As the facade is likely to be 1 m deep, the real setback is 9m. The landscape plans show Blue Gums in Pockley Avenue, 1m from the site boundary leaving 8m for canopy. These trees grow to 30 m plus.

The architectural plans show deep soil where there are walkways between and around buildings. The landscape plans show deep soil between the site boundary and the facade and excludes common areas, paths and the like.

Action: Recalculate deep soil area to validate the claimed deep soil percentage. Amend architectural plans to reflect reality.

CLAUSE 4.6 VARIATION REQUEST ENVIRONMENT

The surrounding area is home to many native species of flora and fauna. Powerful owls visit regularly for their prey. They require tall trees. Possum entrails have been left in gardens many times, and as recently as 15 April 2025. Other avi-fauna include cockatoos, crested pigeons, king parrots, lorikeets and galahs. A whip bird is often heard at the bottom of Kings Avenue.



Figure 7: Possum Entrails from Powerful Owl



*Figure 8: Powerful Owl Sighting 32
Shirley Road*

PROPOSED SHIRLEY ROAD – POCKLEY AVENUE LINK

The proposed link between Pockley Avenue and Shirley road will do little to alleviate traffic issues at the MacLaurin/Highway intersection as the Shirley Road/Pacific Highway intersection is already overburdened. In AM peak hour it takes 2-3, sometimes as many as 4. traffic light changes for a right turn exit. Further it will encourage rat runs through suburban streets to avoid overburdened intersections, especially for traffic to and from Lady Game Drive and towards North Ryde.

The link is on a blind corner in Shirley Road, down a steep incline around 20% to Pockley Avenue. Opposite this intersection there is a proposal for 58 units at 17-21 Shirley Road for which the vehicle entrance/exit is almost opposite the link exit.

In the event of a bushfire Shirley Road will be used for evacuation and emergency vehicles from the length of Shirley Road adjacent to Blue Gum Creek up to the Rifleway and opposite Alexander Parade and Pockley Avenue.

It will be of little benefit to the precinct in a bushfire evacuation as it crosses the bushfire prone lands in Pockley Avenue.

APPENDIX

Table 1	WEST ROSEVILLE DWELLINGS – SSDs, under CONSTRUCTION & EXISTING
Table 2	MACLAURIN PARADE PACIFIC HIGHWAY INTERSECTION - CURRENT TRAFFIC CONDITIONS
Table 3	MACLAURIN PARADE PACIFIC HIGHWAY INTERSECTION - EXPECTED TRAFFIC CONDITIONS WITH ADDITIONAL UNITS

WEST ROSEVILLE DWELLINGS – SSDs. under CONSTRUCTION & EXISTING

SUMMARY OF ADDITIONAL DWELLINGS – APPROVAL, UNDER CONSTRUCTION				
Location	Units in Development	Less Demolished	Equals Additional Units	Car Spaces
2,4,6,8,10,12,14,16 Pockley Ave	178	8	170	285
2,4 Larkin St & 1, 3, 5 Pockley Ave	111	5	106	150
7,9,11 Pockley Ave	42	3	39	84
4A, 6A, 6, 8, 10 Maclaurin Pde	40	5	35	68
Roseville Memorial Club	33	0	33	57
1 – 3 Corona Avenue (just finished)	23	2	21	42
TOTAL ADDITIONAL DWELLINGS	427	23	404	686

SUMMARY OF EXISTING SINGLE DWELLINGS & UNITS			
Precinct	Single Dwellings & Units	Unit Car Spaces	Single Dwelling Cars
Nola Road Precinct excluding Nola Lane	56	93	6
Kings Avenue Precinct	26	41	10
MacLaurin Parade Precinct	7	0	8
Alexander Parade Precinct	37	0	72
Corona Avenue including Nola Lane Precinct	46	42	29
Pockley Avenue Precinct	2	0	4
Larkin Street Precinct (Car Spaces Estimated from Unit Numbers)	83	78	6
Findlay Avenue Precinct (Car Spaces Estimated from Unit Numbers)	105	30	134
TOTAL EXISTING DWELLINGS & UNITS	362	284	269

GRAND TOTALS				
	Dwellings	Unit Car Spaces	Single Dwelling Cars	Car Spaces + Cars
ADDITIONAL DWELLINGS UNDER CONSTRUCTION AND APROVAL	404	686	0	686
EXISTING DWELLINGS & UNITS	362	284	269	553
GRAND TOTALS	766	970	269	1,239

TABLE 1

MACLAURIN PARADE PACIFIC HIGHWAY INTERSECTION - CURRENT TRAFFIC CONDITIONS

Level of Service (LOS)

(RTA Definition) Average Delay per Vehicle (s)

A	< 14.5	very good
B	$14.5 \leq 28.5$	
C	$28.5 \leq 42.5$	
D	$42.5 \leq 56.5$	
E	$56.5 \leq 70.5$	
F	≥ 70.5	highly congested conditions

MCLAURIN PARADE TO PACIFIC HIGHWAY TRAFFIC COUNT - EXISTING DWELLINGS

Count Date 11/06/2025

LEVEL OF SERVICE = F

	TURNING FROM MACLAURIN INTO PACIFIC HWY																	
CYCLE NUMBE R	TIME WHEN MACLAURIN EXIT LIGHT TURNS GREEN (AM)			TIME WHEN MACLAURIN EXIT LIGHT TURNS RED (AM)			HIGHWAY ELAPSED CYCLE TIME = HIGHWAY LIGHT GREEN TO GREEN	MACLAURI N ELAPSED CYCLE TIME = TIME FOR MACLAURI N CARS TO EXIT	CARS WAITING FOR MACLAURI N GREEN EXIT LIGHT	CARS TURNED LEFT FROM MACLAURI N	CARS TURNED RIGHT FROM MACLAURI N	CARS OUT OF MACLAURI N	CARS LEFT IN MACLAURI N WHEN GREEN GOES RED	DELAY FIRST CAR OUT SECS	DELAY LAST CAR OUT SECS	AVERAGE DELAY PER CYCLE SECS		
	HR	MIN	SEC	HR	MIN	SEC	MIN	SEC									MIN	SEC
1	8	8	11	8	8	35			0	24	14	1	9	10	4			
2	8	10	44	8	11	5	2	33	0	21	8	0	4	4	8	145	166	156
3	8	13	9	8	13	30	2	25	0	21	14	2	2	4	10	150	171	161
4	8	15	39	8	16	5	2	30	0	26	7	0	9	9	6	153	179	166
5	8	18	12	8	18	35	2	33	0	23	12	2	4	6	12	149	172	161
6	8	20	41	8	20	58	2	29	0	17	27	0	0	0	15	149	166	158
7	8	23	10	8	23	40	2	29	0	30	30	0	1	1	16	299	299	299
8	8	25	40	8	25	58	2	30	0	18	20	5	5	10	14	449	467	458
9	8	28	10	8	28	40	2	30	0	30	11	3	8	11	8	599	180	390
10	8	30	40	8	31	5	2	30	0	25	6	0	5	5	3	153	178	166
11	8	33	13	8	33	36	2	33	0	23	3	1	3	4	4	148	23	86
12	8	35	41	8	36	2	2	28	0	21	4	0	4	4	4	152	169	161
13	8	38	13	8	38	35	2	32	0	22	0	0	4	4	0			
AVERAGE CYCLE & DELAY TIMES							2	32	0	23						AVERAGE DELAYS secs		
									TOTALS	156		14	58	72		104	FIRST CAR	LAST CAR
									AVERAGES PER CYCLE		12	1	4	6	8	231	197	214

TABLE 2

MACLAURIN PARADE PACIFIC HIGHWAY INTERSECTION - EXPECTED TRAFFIC CONDITIONS WITH ADDITIONAL UNITS

Modal Percentage between Vehicle and Public Transport for Ku-ring-gai (2021 Census Data)																
Factor for Traffic Generated per New Unit 0.26		AM Peak Hour Traffic Generated		AM Peak Traffic Existing House			AM Peak Hour Traffic Increase						Level of Service (LOS)			
		New Units	Car Trips per New Unit	AM Cars per Hour	Houses Lost	Car Trips per House Lost	AM Cars (vph) per Hour	Increase in Vehivles per hour (vph)	AVERAGE HIGHWAY CYCLE TIME SECS	NUMBER OF CYCLES PER HOUR	ADDITIONAL NUMBER OF CARS PER HIGHWAY CYCLE	Number of Cycles	Additional Cars for Count Period	(RTA Definition) Average Delay per Vehicle (sec)		
2,4,6,8,10,12,14,16 Pockley Ave		178	0.26	46.00	8	0.68	5.00	41.00	150	24	4	13	52	A	< 14.5	very good
2,4 Larkin St & 1, 3, 5 Pockley Ave		111	0.26	29.00	5	0.68	3.00	26.00	Note: Add additional cars to Cars Waiting for MacLaurin Green Exit Light as Cars out of MacLaurin limited by Highway traffic occupying Highway to Boundary Street					B	14.5 ≤ 28.5	
7,9,11 Pockley Ave		42	0.26	11.00	3	0.68	2.00	9.00						C	28.5 ≤ 42.5	
4A, 6A, 6, 8, 10 MacLaurin Pde		40	0.26	10.00	5	0.68	3.00	7.00						D	42.5 ≤ 56.5	
Roseville Memorial Club		33	0.26	9.00	0	0.68	0	9.00						E	56.5 ≤ 70.5	
1 – 3 Corona Avenue		23	0.26	6.00	2	0.68	1.00	5.00						F	≥ 70.5 highly congested conditions	
Total Increase -Traffic Generated by New Units AM Peak Hour								97								

MCLAURIN PARADE TO PACIFIC HIGHWAY TRAFFIC COUNT - NEW & EXISTING DWELLINGS

Count Date 11/06/2025

LEVEL OF SERVICE = F

	TURNING FROM MACLAURIN INTO PACIFIC HWY																		
CYCLE NUMBER	TIME WHEN MACLAURIN EXIT LIGHT TURNS GREEN (AM)			TIME WHEN MACLAURIN EXIT LIGHT TURNS RED (AM)			HIGHWAY ELAPSED CYCLE TIME = HIGHWAY LIGHT GREEN TO GREEN		MACLAURIN ELAPSED CYCLE TIME = TIME FOR MACLAURIN CARS TO EXIT		CARS WAITING FOR MACLAURIN GREEN EXIT LIGHT	CARS TURNED LEFT FROM MACLAURIN	CARS TURNED RIGHT FROM MACLAURIN	CARS OUT OF MACLAURIN	CARS LEFT IN MACLAURIN WHEN GREEN GOES RED	DELAY FIRST CAR OUT SECS	DELAY LAST CAR OUT SECS	AVERAGE DELAY PER CYCLE SECS	
	HR	MIN	SEC	HR	MIN	SEC	MIN	SEC	MIN	SEC									
1	8	8	11	8	8	35			0	24	14	1	9	10	8				
2	8	10	44	8	11	5	2	33	0	21	16	0	4	4	12	145	166	156	
3	8	13	9	8	13	30	2	25	0	21	22	2	2	4	14	150	171	161	
4	8	15	39	8	16	5	2	30	0	26	15	0	9	9	10	153	179	166	
5	8	18	12	8	18	35	2	33	0	23	20	2	4	6	16	149	172	161	
6	8	20	41	8	20	58	2	29	0	17	35	0	0	0	19	149	166	158	
7	8	23	10	8	23	40	2	29	0	30	38	0	1	1	20	299	299	299	
8	8	25	40	8	25	58	2	30	0	18	28	5	5	10	18	449	367	408	
9	8	28	10	8	28	40	2	30	0	30	19	3	8	11	12	599	180	390	
10	8	30	40	8	31	5	2	30	0	25	14	0	5	5	7	303	178	241	
11	8	33	13	8	33	36	2	33	0	23	11	1	3	4	8	326	23	175	
12	8	35	41	8	36	2	2	28	0	21	12	0	4	4	8	152	21	87	
13	8	38	13	8	38	35	2	32	0	22	8	0	4	4	4				
	AVERAGE CYCLE & DELAY TIMES						2	30	0	23						AVERAGE DELAYS secs			
									TOTALS		252	14	58	72	156		FIRST CAR	LAST CAR	PER CYCLE
	AVERAGES PER CYCLE										19	1	4	6	12		261	175	218

TABLE 3