NZ TRANSPORT AGENCY
WAKA KOTAHI

New Zealand Government

Bicycle crashes in the Auckland Region

This fact sheet prepared by the Performance Information section in the Auckland office of the NZ Transport Agency (NZTA) is designed as a local supplement to the national bicycle information fact sheet published by the Ministry of Transport (MoT). http://www.transport.govt.nz/research/Pages/CyclistCrashFacts.aspx

In this fact sheet the Auckland Region is defined as being all the local bodies from Rodney District to Franklin District.

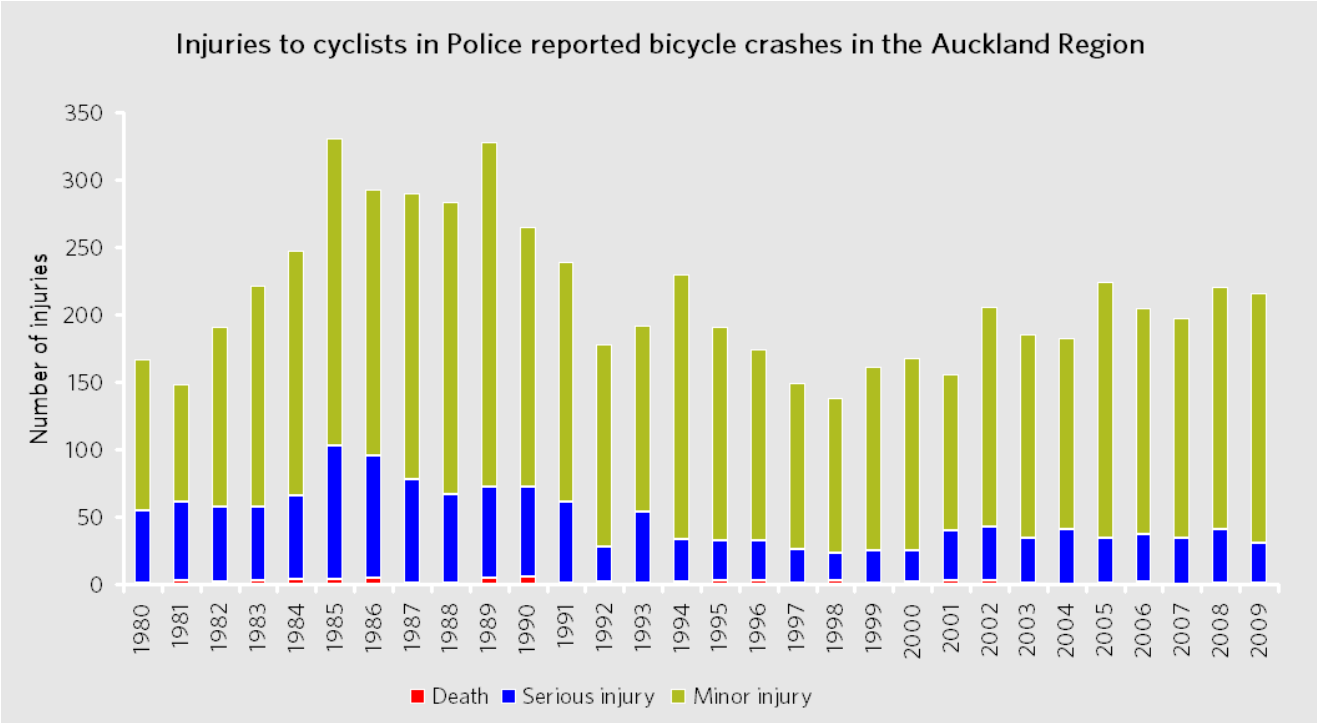
Background

The MoT's Crash Analysis System (CAS) contains information about bicycle crashes reported to NZ Police dating back to 1980. It needs to be noted however that since a bicycle is not a "motor vehicle" bicycle only crashes are not legally required to be reported to NZ Police. Only those injury crashes where a motor vehicle is involved are required to be reported.
However the occasional crash report that the NZTA has received from NZ Police involving "bicycles only" from 2000 (which we held in folders) have recently been added to CAS, but the number of these is however small.

This means that while CAS is a comprehensive data base which can reliably represent the type, nature and location of crashes involving motorised transport it needs to be understood that as far as all bicycling crashes are concerned it is merely a subset of the total picture.
Unless otherwise noted all crash data in this fact sheet comes from CAS.

This fact sheet, which is based on injury crash data for the period 2005 to 2009 also contains some data for the oldest five year period held in CAS, 1980 to 1984. This has been included to illustrate some of the changes that have occurred over a long time period, in particular there have been some very big changes in the age distribution to those cyclists who are being injured.

The chart below illustrates the cyclist injury pattern in the Auckland Region from 1980. There was a sharp rise in the number of crashes reported in the mid 1980's possibly around better reporting and increased use. Crashes fell again to the late 1990's and have been rising ever since.



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Safer Journeys—Road Safety 2020

For the past decade road safety in New Zealand has been directed by the Road Safety 2010 strategy.

This strategy was introduced in 2003 and aimed to reduce deaths and casualties from road crashes.

In March 2010 the Government released a new strategy, "Safer Journeys", to build on the gains made under the Road Safety to 2010.

Under the new strategy, road safety will be looked at from a system wide approach rather than focusing so strongly on the road user.

The emphasis will be on improving all the parts of the road transport system that impact on safety; the road, the vehicle, travel speeds and the road user.

A number of areas were chosen as the areas of focus under the 2020 strategy.

These areas were assigned a priority, based on research that shows five major areas of concern, six areas of lesser concern, and two areas where continued focus is needed, or concern is emerging.

These divisions are shown in "table 3" opposite.

This table is a direct extract from page 12 of the Safer Journeys document which can be found here: http://www.transport.govt.nz/saferjourneys/Documents/SaferJourneyStrategy.pdf

The table shows cycling falling into the area of medium concern.

Pages 38 and 39 of the "Safer Journeys" document outlines actions that can be taken to lower injuries to cyclists (and pedestrians) these are :

- Change the Give Way rules—Signalled by Transport Minster Joyce in late September 2010 This was tagged in the document as a "probable first step"
- Strengthen the techniques to integrate safety into land-use planning
- Lower speeds in urban area
- Increase coverage of part time lower speed limits around schools
- Increase cycle training in schools and increase the effectiveness of road user education to make it safer to walk and cycle

Table 3 – Safer Journeys' areas of concern and the Safe System

AREAS OF CONCERN WE WILL ADDRESS	WHERE WE WILL TAKE ACTION ACROSS THE SAFE SYSTEM			
	SAFE ROADS AND ROAD-SIDES	SAFE SPEEDS	SAFE VEHICLES	SAFE ROAD USE
Areas of high concern				
Reducing alcohol/drug impaired driving			✓	✓
Increasing the safety of young drivers	✓	✓	✓	✓
Safe roads and roadsides	✓			
Safe speeds	✓	✓	✓	
Increasing the safety of motorcycling	✓	✓	✓	✓
Areas of medium concern				
Improving the safety of the light vehicle fleet			✓	✓
Safe walking and cycling	✓	✓	✓	✓
Improving the safety of heavy vehicles	✓	✓	✓	✓
Reducing the impact of fatigue	✓	✓	✓	✓
Addressing distraction	✓		✓	✓
Reducing the impact of high risk drivers		✓	✓	✓
Areas of continued and emerging focus				
Increasing the level of restraint use			✓	✓
Increasing the safety of older New Zealanders	✓	✓	✓	✓

For some priorities (eg motorcycling), complementary action will be taken across all four areas of the Safe System. For others (eg reducing the impact of drink driving or safe roads), more effort would be focussed on one or two of the four Safe System areas.

Cycle injury crashes nationally 1980 to 1984

Number of injury cycle crashes nationally					
Year	1980	1981	1982	1983	1984
Number	746	767	905	922	975

Between 1980 and 1984 there were 4315 injury crashes involving cyclists. These crashes resulted in 123 fatally injured cyclists, 1314 with serious injuries and 2944 with minor injuries.

Injuries to cyclists nationally					
	1980	1981	1982	1983	1984
Fatal	22	21	30	19	31
Serious	280	274	258	265	237
Minor	461	485	630	648	720
Total	764	781	919	932	990

Auckland Region and Canterbury Region had the highest number of cycle crashes and the highest number of fatal and serious crashes.

Injury cycle crashes by Local Government Region		
Region 1980 to 1984	Number of crashes	Number of fatal and serious injuries to cyclists
Northland	42	11
Auckland	957	294
Waikato	333	123
Bay of Plenty	222	77
Taranaki	84	30
Gisborne	84	18
Hawkes Bay	229	87
Manawatu / Whanganui	316	118
Wellington	500	160
Nelson / Marlborough	141	60
Canterbury	1140	360
West Coast	27	10
Otago	146	61
Southland	94	28
Total	4315	1437

Cycle injury crashes nationally 2005 to 2009

Number of injury cycle crashes nationally					
Year	2005	2006	2007	2008	2009
Number	774	869	904	932	856

Between 2005 and 2009 there were 4335 injury crashes involving cyclists. These crashes resulted in 51 fatally injured cyclists, 846 with serious injuries and 3510 with minor injuries.

Injuries to cyclist nationally					
	2005	2006	2007	2008	2009
Fatal	12	9	12	10	8
Serious	132	162	198	198	156
Minor	646	708	713	733	710
Total	790	879	923	941	874

Auckland Region and Canterbury Region had the highest number of cycle crashes and the highest number of fatal and serious crashes.

Injury cycle crashes by Local Government Region		
Region 2005 to 2009	Number of crashes	Number of fatal and serious injuries to cyclists
Northland	82	15
Auckland	1036	175
Waikato	334	77
Bay of Plenty	226	66
Taranaki	78	22
Gisborne	69	7
Hawkes Bay	239	37
Manawatu / Whanganui	223	44
Wellington	655	123
Nelson / Marlborough	250	45
Canterbury	808	196
West Coast	14	4
Otago	217	57
Southland	103	29
Total	4335	897

Casualty and crash information nationally 1980 to 1984

Over the period the number of crashes rose dramatically from around 750 to nearly 1000, with injuries rising as well.

Age and gender of cyclist casualties 1980 to 1984				
Ages (where known)	Female	Male	Total	Percentage
0 to 4	4	10	14	0.3
5 to 9	123	348	471	11.5
10 to 14	407	972	1,379	33.7
15 to 19	384	672	1,056	25.8
20 to 24	190	268	458	11.2
25 to 29	63	118	181	4.4
30 to 34	14	97	111	2.7
35 to 39	11	51	62	1.5
40 to 44	22	53	75	1.8
45 to 49	22	33	55	1.3
50 to 54	13	49	62	1.5
55 to 59	12	30	42	1.0
60 to 64	8	30	38	0.9
65 to 69	8	29	37	0.9
70 to 74	9	21	30	0.7
75 and over	8	23	19	0.5
Totals	1298	2804	4090	100

Further information about the 4315 cycle injury crashes in New Zealand 1980 to 1984:

- 59 percent at intersections
- 93 percent on urban roads
- 84 percent in daytime
- 84 percent in the dry
- Worst three hour period 3pm to 6pm
- Worst month March, best January
- Worst day of week Friday, best Sunday
- Most common crash type: other party turns right in front of cyclist travelling straight ahead, commonly at intersections (16 percent of all crashes)
- Social cost (in 2010 dollars) $1,658.5m

Casualty and crash information nationally 2005 to 2009

Over the period crashes have fluctuated but remained relatively stable, as have the number of injuries to cyclists.

Age and gender of cyclist casualties 2005 to 2009				
Ages (where known)	Female	Male	Total	Percentage
0 to 4	4	14	18	0.4
5 to 9	40	112	152	3.7
10 to 14	143	523	666	16.0
15 to 19	101	371	472	11.3
20 to 24	120	216	336	8.1
25 to 29	138	202	340	8.2
30 to 34	108	233	341	8.2
35 to 39	88	275	363	8.7
40 to 44	99	293	392	9.4
45 to 49	90	272	362	8.7
50 to 54	71	196	267	6.4
55 to 59	54	141	195	4.7
60 to 64	18	89	107	2.6
65 to 69	6	57	63	1.5
70 to 74	6	36	42	1.0
75 and over	7	46	43	1.0
Total	1093	3076	4159	100

Further information about the 4335 cycle injury crashes in New Zealand 2005 to 2009:

- 57 percent at intersections
- 91 percent on urban roads
- 85 percent in daytime
- 88 percent in the dry
- Worst three hour period 3pm to 6pm
- Worst month March, best July
- Worst day of week Thursday, best Sunday
- Most common crash type: other party turns right in front of cyclist travelling straight ahead, commonly at intersections (15 percent of all crashes)
- Social cost (in 2010 dollars) $1,113.6m

Auckland Region 1980 to 1984

Number of injury cycle crashes Auckland Region					
	1980	1981	1982	1983	1984
Number	164	146	187	217	245

Between 1980 and 1984 there were 959 injury crashes involving cyclists. These crashes resulted in 13 fatally injured cyclists, 283 with serious injuries and 678 with minor injuries.

Injuries to cyclists Auckland Region					
	1980	1981	1982	1983	1984
Fatal	1	3	2	3	4
Serious	54	58	55	54	62
Minor	112	87	134	164	181
Total	167	148	191	221	247

Auckland City (479) and Manukau City (217) had the highest numbers of cycle crashes in the region.
Rodney District (7) and Franklin District (8) had the lowest.

Injury cycle crashes by local body *					
	1980	1981	1982	1983	1984
Rodney	0	1	3	1	2
North Shore	30	22	22	29	34
Waitakere	12	13	11	14	21
Auckland	79	80	95	111	114
Manukau	32	24	45	55	61
Papakura	9	5	8	5	13
Franklin	2	1	3	2	0

* Note that the local bodies above are the equivalents of those in existence today as local body amalgamation occurred in the late 1980's.
At the time this data was gathered there were a much higher number of local bodies in the region,

Auckland Region 2005 to 2009

Number of injury cycle crashes Auckland Region					
	2005	2006	2007	2008	2009
Number	219	201	196	217	211

Between 2004 and 2009 there were 1044 injury crashes involving cyclists. These crashes resulted in 5 fatally injured cyclists, 172 with serious injuries and 885 with minor injuries.

Injuries to cyclists Auckland Region					
	2005	2006	2007	2008	2009
Fatal	1	2	0	1	1
Serious	33	35	34	40	30
Minor	190	168	163	179	185
Total	224	205	197	220	216

Auckland City (496) has by far the highest number of cycling crashes in the region.
Although numbers are still relatively small the two large mainly rural local bodies have seen increases in crash numbers since the earlier period in the adjacent column.

Injury cycle crashes by local body **					
	2005	2006	2007	2008	2009
Rodney	4	14	6	10	9
North Shore	47	41	29	30	32
Waitakere	23	20	21	27	19
Auckland	107	86	101	101	101
Manukau	28	31	27	35	34
Papakura	5	3	5	5	7
Franklin	5	6	7	9	9

** Towards the end of 2010 some or all of the local bodies above are being amalgamated into one large city. The most noticeable difference will be the lower half of Franklin District going to the Waikato. For the purposes of safety reporting NZTA , NZ Police, ARTA and Auckland City have been working together to develop some meaningful subdivisions of the new city.
Following along new ward boundaries there will be two rural areas (northern and southern), four mainly urban areas (north, west, central and south) and "Gulf Islands".

Auckland Region casualty and crash information 1980 to 1984

Over the period the number of cycle related crashes rose from 164 in 1980 to 245 in 1984.

Age and gender of cyclist casualties 1980 to 1984				
Ages (where known)	Female	Male	Total	Percentage*
0 to 4	0	1	1	0.1
5 to 9	23	67	90	10.0
10 to 14	67	242	309	34.3
15 to 19	49	192	241	26.7
20 to 24	37	79	116	12.9
25 to 29	10	36	46	5.1
30 to 34	2	26	28	3.1
35 to 39	5	13	18	2.0
40 to 44	1	12	13	1.4
45 to 49	3	4	7	0.8
50 to 54	1	11	12	1.3
55 to 59	0	4	4	0.4
60 to 64	0	9	9	1.0
65 to 69	1	3	4	0.4
70 to 74	0	1	1	0.1
75 and over	0	3	3	0.3
Totals	199	703	902	100

Further information about the 959 cycle injury crashes in the Auckland Region 1980 to 1984:

- 57 percent at intersections
- 97 percent on urban roads
- 86 percent in daytime
- 85 percent in the dry
- Worst three hour period 3pm to 6pm
- Worst month March, best January
- Worst day of week Friday, best Sunday
- Most common crash type: other party turns right in front of cyclist travelling straight ahead, commonly at intersections (19 percent of all crashes)
- Social cost (in 2010 dollars) $295.6m

*see page 8 for chart

Auckland Region casualty and crash information 2005 to 2009

Over the period crashes have remained relatively stable, as have the numbers of injuries to cyclists.

Age and gender of cyclist casualties 2005 to 2009				
Ages (where known)	Female	Male	Total	Percentage*
0 to 4	0	4	4	0.4
5 to 9	8	23	31	3.1
10 to 14	19	106	125	12.6
15 to 19	20	79	99	10.0
20 to 24	21	53	74	7.5
25 to 29	30	65	95	9.6
30 to 34	34	68	102	10.3
35 to 39	18	88	106	10.7
40 to 44	24	82	106	10.7
45 to 49	8	66	74	7.5
50 to 54	16	53	69	6.9
55 to 59	8	35	43	4.3
60 to 64	4	21	25	2.5
65 to 69	2	19	21	2.1
70 to 74	0	9	9	0.9
75 and over	0	10	10	1.0
Totals	212	781	993	100

Further information about the 1044 cycle injury crashes in the Auckland Region 2005 to 2009:

- 58 percent at intersections
- 95 percent on urban roads
- 85 percent in daytime
- 86 percent in the dry
- Worst three hour period 3pm to 6pm
- Worst month March, best July
- Worst day of week Thursday, best Sunday
- Most common crash type: other party turns right in front of cyclist travelling straight ahead, commonly at intersections (21 percent of all crashes)
- Social cost (in 2010 dollars) $196.1m

* see page 8 for chart

Auckland Region casualty information—cycle crashes

Casualty age distribution

In the Auckland region, as in all New Zealand, there has been a marked shift in the past three decades in the age distribution of cyclists being injured.

The chart below (taken from the full data on the previous page) illustrates just how dramatic this change has been and is certainly not something which could be accounted for just with changes to the general age profile of the regions population.

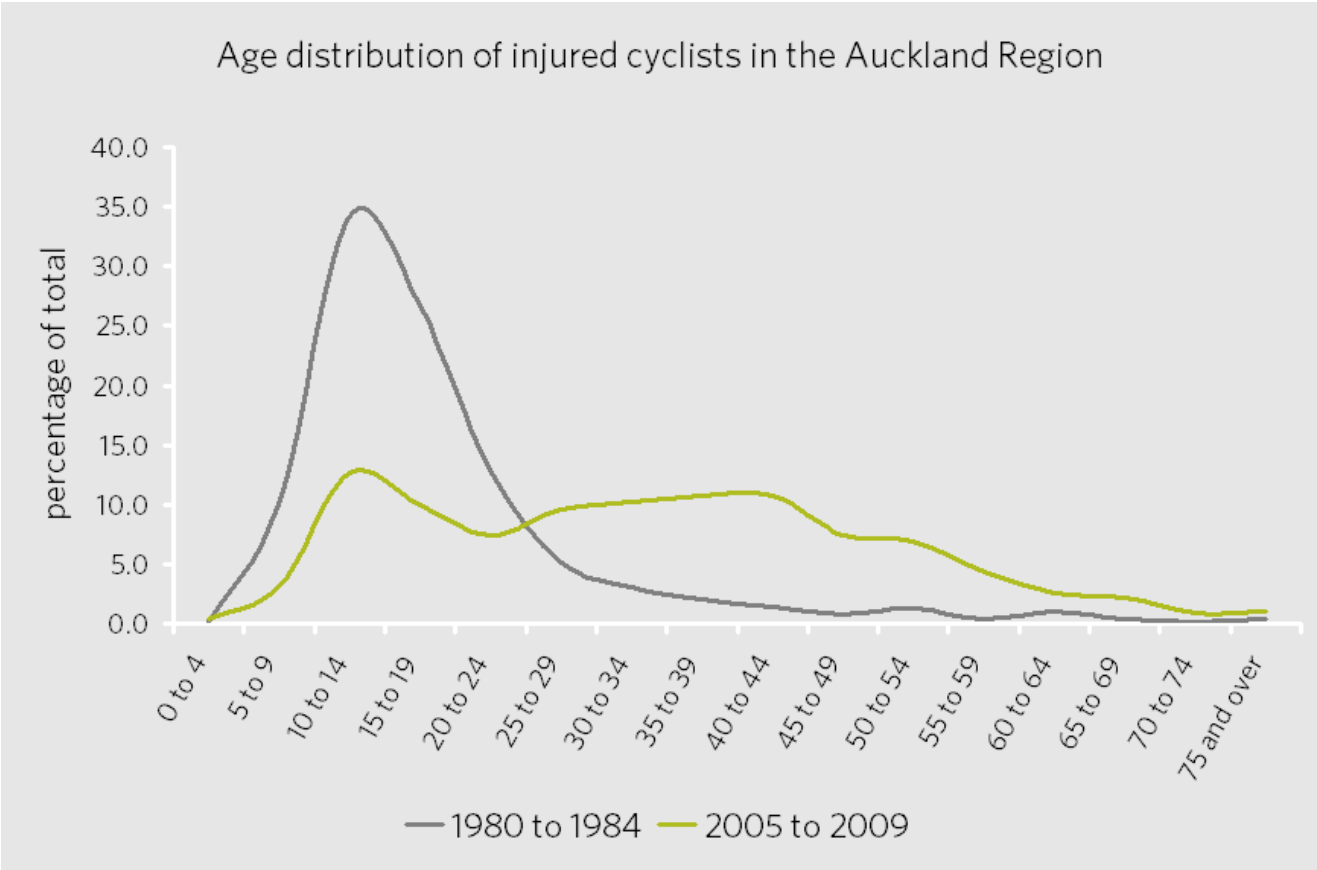
Interestingly, the total number of cyclist injured in these two periods is relatively similar at 902 for the 1980 to 1984 period versus 993 for the 2005 to 2009 period.

Unless the youth cyclists of today are behaving incredibly safely (which seems unlikely) it would appear that the number of young people learning to ride a bicycle has fallen dramatically in this region and the bulge in casualties in the 30– 60 year old age group is likely to represent the large group who learnt to cycle in the early 1980's.

A consequence of this may be that it will, in future years, become difficult to attract adults to cycle since far fewer people appear to be learning to do so now while young—although there is some speculation that this may still be happening but riding is all "off-road" eg at the Woodhill forest.

In addition there may be a fall-off in later years in those choosing to ride a motorcycle since fewer people will have the requisite balance skills needed to embark on transport with two wheels.

Alternatively we may see new motorcyclists entering the system lacking the initial on-road two wheeled training and defensive riding skills that a bicycle offers at a lower speed.

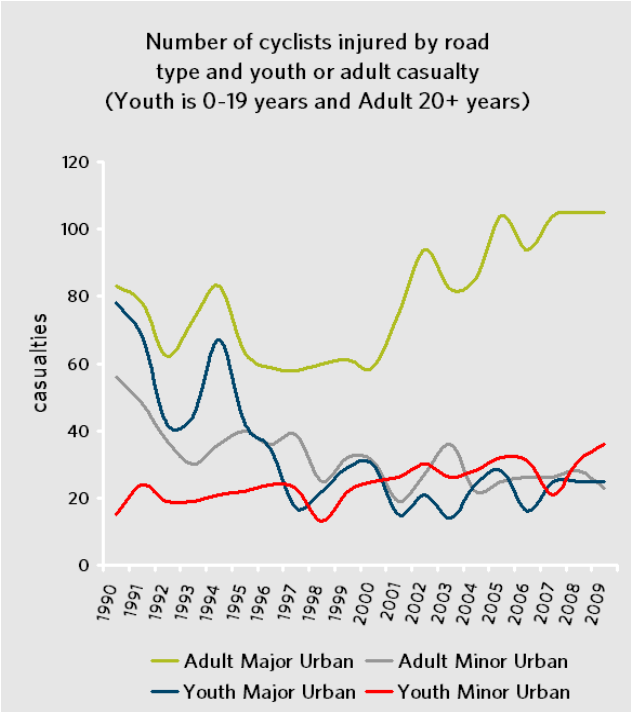


Auckland Region casualty information—cycle crashes

Crash road type and age group (adult)

From 1990 onwards CAS has been able to classify the location of a crash into six broad road type categories:

- Major and minor urban roads
- Motorways
- State Highway and non-State Highway rural roads
- Urban State Highways



As 95 percent of cycle crashes in the Auckland region are on urban roads (those with a speed limit of 70km/hr or less) the charts on this page look only at urban crashes.

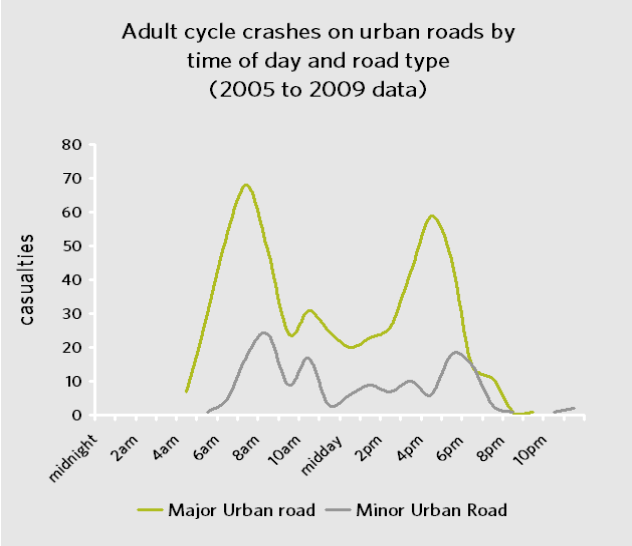
The chart above illustrates the number of cyclist casualties over time by either major urban roads or minor urban roads.

The chart further subdivides by the age group of cyclist, either "adult" (20 years old and over) or "youth" (19 years old or less).

It is interesting to note the rise in adult cyclists being injured on the major urban routes particularly post the year 2000.

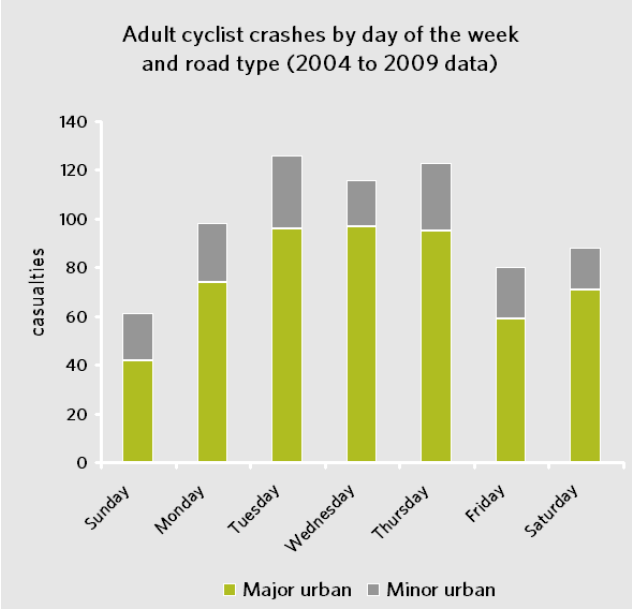
This would suggest that the cyclists returning to two wheels in the older group are doing their riding mainly on the urban arterials.

Looking in more detail at the riding patterns of the adult cyclists (below) we can see that the travel patterns appear very commuter peak and major road oriented.



The chart below presents the same data as that above but by day of the week and road type.

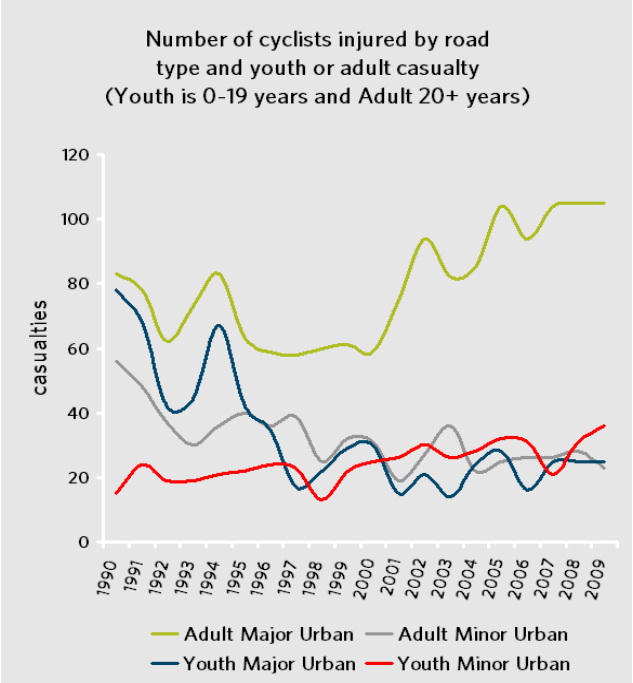
In this we can see that while the times of day chart above may (and probably does) indicate a significant amount of commuting by adult cyclists on our regions main arterial routes, there is still significant recreational or training riding occurring on these same roads at the weekend.



Auckland Region casualty information—cycle crashes

Crash road type and age group (youth)

The charts on this page present similar data to that on the previous page but for "youth" cyclists (those aged 19 or less).
It is interesting to note the big decline in youth cyclists being injured on the major urban routes and the small rise in injuries on minor roads, (chart repeated from previous page).



The MoT's June 2009 document "How New Zealanders" travel (p16) has a section on "Travel to school".

The table below, generated from the MoT data, clearly shows the rapid decline in cycling to school as a transports mode, particularly among teenagers.

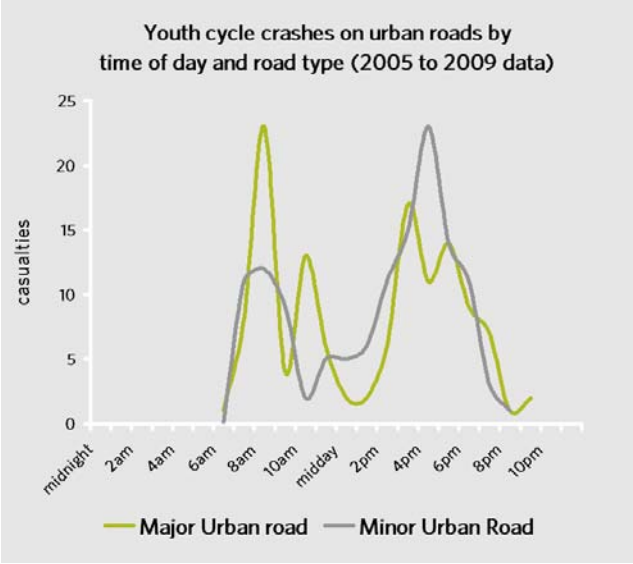
It is possible that the decline in "youth" crashing on major urban routes between 1990 and 1998 (chart above) is connected with the big drop in the teenage group riding to school through this same period.

Percentage of trips to school undertaken by bicycle (All of New Zealand)

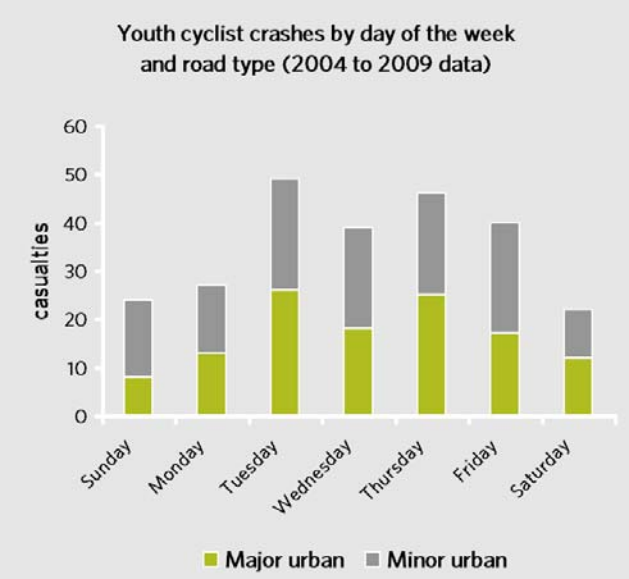
Age range	Household travel survey sampling period			
	1989 to 1990	1997 to 1998	2003 to 2007	2004 to 2008
5 to 12	12	7	5	4
13 to 17	19	11	5	5

The chart below shows that the 'time of the day" crash patterns of the youth group are very different to those in the "adult" group.

There is a peak in crashes on minor urban roads in the afternoons in particular, something which does not really exist for the older group.
There is also a very sharp "trip to school" peak on major roads in the morning.

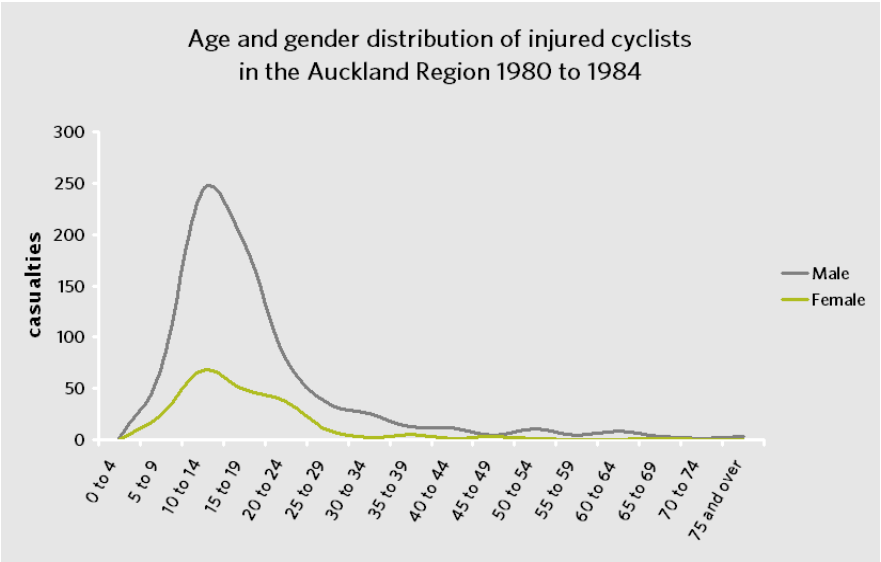


Youth cycle crashes tend to be just slightly more oriented towards the weekdays than is the case for adult cyclists with 81 percent of youth cycle crashes occurring Monday to Friday, for adults this is 78 percent.



Auckland Region casualty information—cycle crashes

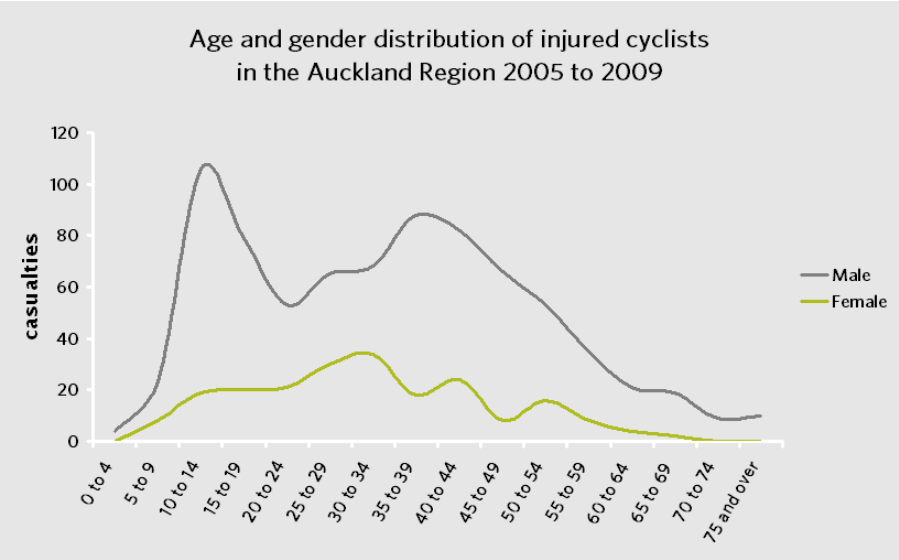
Gender and age group

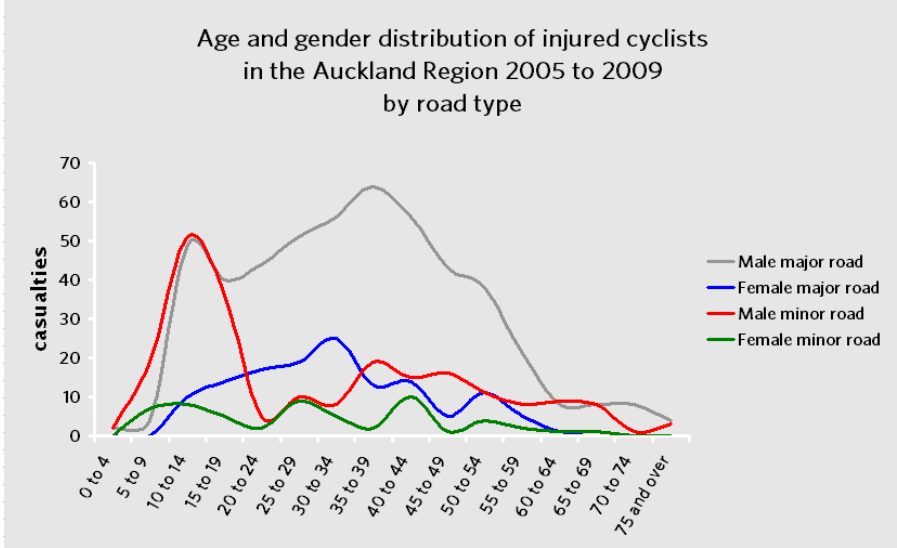


Cycle crashes in this region are dominated by male riders.

Between 1980 and 1984 male riders represented 78 percent of injured cyclists in the Auckland region.

Three decades later in the Auckland region male riders still represented 79 percent of injured cyclists.





The adjacent table illustrates the distribution of cyclist crashes in the Auckland region by gender, age and by major or minor roads.

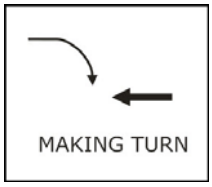
There is a strong preference of older riders, especially males to use major routes.
It would also appear that male riders possibly make a transference of preference between minor road and major roads between the ages of 15 and 25.

Auckland Region cycle crash information

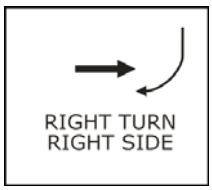
Crash type

The Crash Analysis System classifies crashes according to over 70 different "movement" types. It can also distinguish what type of vehicle is represented by the light or bold arrows in the example diagrams below.

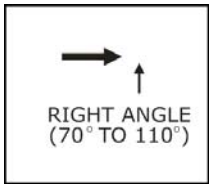
The top five injury crash types for both major and minor **urban** roads are shown below



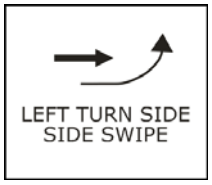
On major urban routes this is the most common crash type with 167 injury crashes in the last five years. On minor urban routes it ranks number three with 29 injury crashes.
Cyclist are most commonly the bold arrow in the diagram, 164 times for major urban roads and 26 times for minor urban roads.



On both major (79 cases) and minor (47 cases) urban roads this is the second most common injury crash involving cyclists. Cyclist are most commonly the bold arrow in the diagram, 76 times for major urban roads and 34 times for minor urban roads.

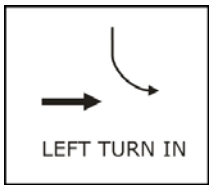


On major urban routes this is the third most common injury crash type (61 cases), however it is the number one injury crash type for cyclists on minor urban roads (74 cases).
Cyclists are represented about half of the time as the bold arrow, however who is at fault is very dependent on the control at the intersection .



On major urban routes this is the fourth most common injury crash type (44 cases). The cyclist is often the bold arrow, 41 cases.

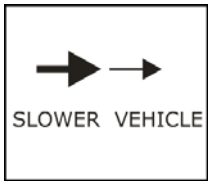
On major urban routes this is the fifth most common injury crash type (34 cases), commonly the cyclist is the light arrow. Of the 34 injury crashes there were only two cases where the cyclist was the vehicle cutting in.



On minor urban routes this is the fourth most common injury crash type (14 cases). Most commonly the cyclist is the bold arrow, 12 cases.

On minor urban routes this is the fifth most common injury crash type (11 cases). Commonly the cyclist is the bold arrow, ten cases.

Rural roads



Rural cycle crash numbers are very low in the Auckland Region compared to urban crashes (95 percent of injury cycling crashes are urban) so it is difficult to conclusively single out one crash type. However rear end crashes the same as, or similar to the adjacent diagram are the most common, 10 cases. In all these cases it is the cyclist that is being run into.

Auckland Region cycle crash information

Crash causes

In addition to classifying the type of crash CAS also contains information about the factors which contributed to the crash. Generally crashes are the result of multiple factors and cycling crashes in the region are no different, with an average of 2.1 factors per crash.

There are almost 400 crash causes in CAS's contributory factor list, however for simplicity CAS is able to cluster similar factors. For example a number of individual speed related factors might be gathered together and just called "speed related". The seventeen CAS factor groups are listed in the table below as well as which vehicle the driver or rider was in.

Auckland Region - injury cycle crash causes listed by cause clusters and the vehicle the driver (or rider) was in (or on) 2005 to 2009

Crash cause group	Cyclist	Car / wagon / van / ute /taxi	Pedestrian	Truck / Bus	Motorcycle	SUV	Total
Alcohol	8	4	0	0	0	0	12
Too fast	31	7	0	1	1	0	40
Failed to Give Way / Stop	109	404	0	9	0	37	559
Failed to keep left	9	6	0	1	0	1	17
Overtaking	10	20	0	6	0	1	37
Incorrect lane or position (also incudes too far left or right)	118	40	0	12	0	0	170
Poor handling	18	6	0	0	0	0	24
Poor observation (not checking properly)	107	516	0	28	0	48	699
Poor judgement (wrong decisions)	21	57	0	4	1	8	91
Fatigue	1	2	0	0	0	0	3
Disabled/old/unwell	6	3	0	0	0	0	9
Pedestrian factors	3	0	7	0	0	0	10
Vehicle factors *	38	14	0	0	0	0	52*
Road factors *	0	0	0	0	0	0	64*
Weather*	0	0	0	0	0	0	52*
"Other" (stray animals etc) *	26	23	0	4	0	1	60*
Total	506	1102	7	65	2	96	1742

* includes some factors attributed to the whole crash (eg bad weather) or a parked (driverless) vehicle ie not attributed to a specific vehicle

Examining the groups above in a little more detail we find:

- In the "vehicle factor" group, the 38 factors assigned to cyclists related in the main to inadequate or no headlights, poor tail lights or reflectors and a small number of brake faults
- In the large "poor observation" category the biggest sub categories for both cars and cycles were "not checking for a vehicles coming from another direction" and "not looking behind when changing lanes or position"
- In the large "incorrect lane or position" group there were 87 crashes where the cyclist was ridding on the footpath and then been hit, in the main, while turning onto the road or riding straight across to the opposite footpath.

Auckland Region cycle crash information

Crash locations— Intersections

In the Auckland Region between 2005 and 2009 over half (58 percent) of injury crashes involving a bicycle occurred at a junction.

In the table below are the junction types for injury cycle crashes in the region. The highest number of crashes occur at tee type junctions (as there are a lot of these in our region) and while numbers are small there is a slight upward trend in these crashes.

Junction type Auckland Region—injury cycle crashes

Intersection type	2005	2006	2007	2008	2009	Total
Driveway	7	5	11	8	8	39
Multi road join (more than four roads)	2	1	1	3	2	9
Roundabout	13	14	11	17	11	66
Tee junctions	79	77	66	70	88	380
X junction	18	9	16	21	17	81
Y junction	5	9	6	2	5	27
Total	124	115	111	121	131	602

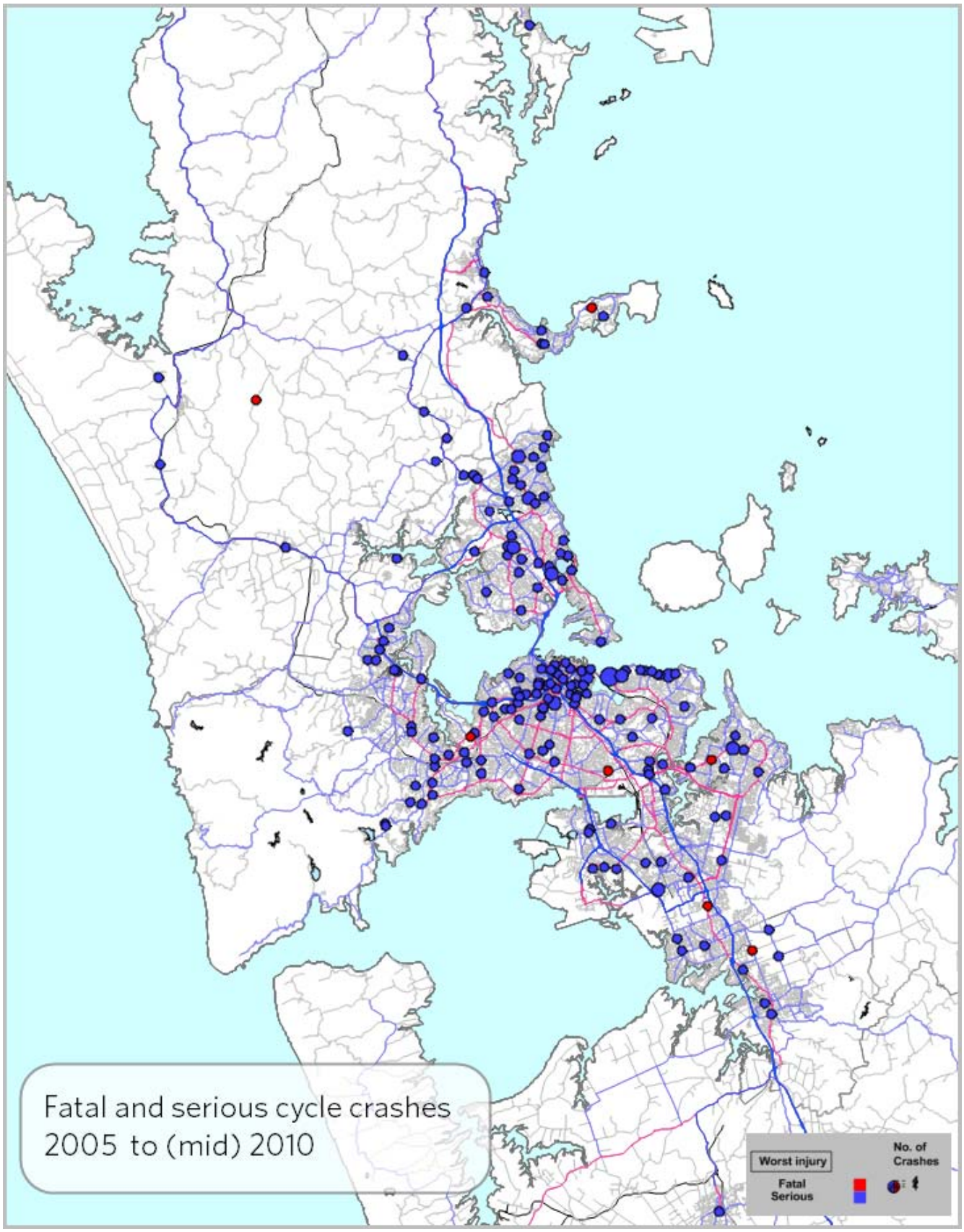
There are 16 intersections in the region with three or more injury cycle crashes at them in the last five years including one with 12 crashes. These are shown in the table below. Note there were no fatal crashes at any of these locations.

Junctions with three or more injury cycle crashes 2005 to 2009 - Auckland Region

Rank	Junction name	Local body	Injury crashes	Serious injuries	Minor injuries	Wet	Dark	Social cost (in 2010 dollars)
1	Tamaki / Ngapipi	Auckland City	12	3	11	2	0	2,363,130
2	Puhinui / Noel Burnside	Manukau City	5	2	4	0	1	1,342,920
3	Gt North / Bullock	Auckland City	4	0	4	2	1	314,340
4	Taniwha / Elstree	Auckland City	4	0	5	1	0	308,760
5	Wairau / Ellice	North Shore City	4	2	2	0	2	1,273,170
6	Campbell / Manukau	Auckland City	3	0	4	0	0	236,220
7	Carrington / Woodward	Auckland City	3	0	4	1	0	230,640
8	Church / Donovan	Auckland City	3	0	3	0	1	234,360
9	Mt Eden / Esplanade	Auckland City	3	2	1	0	0	1,188,540
10	Mt Smart / Mays	Auckland City	3	0	3	0	1	232,500
11	Mountain / Clive	Auckland City	3	0	3	1	0	236,220
12	St Stephens / Parnell	Auckland City	3	0	3	2	0	230,640
13	Tamaki / Atkin	Auckland City	3	0	3	1	1	228,780
14	Tamaki / Watene	Auckland City	3	1	2	0	0	708,660
15	East Coast / Sunrise (S)	North Shore City	3	2	1	0	1	1,188,540
16	Glenfield / James (S)	North Shore City	3	1	4	0	0	718,890
		Totals	62	13	57	10	8	$11,636,310

Auckland Region cycle crash information

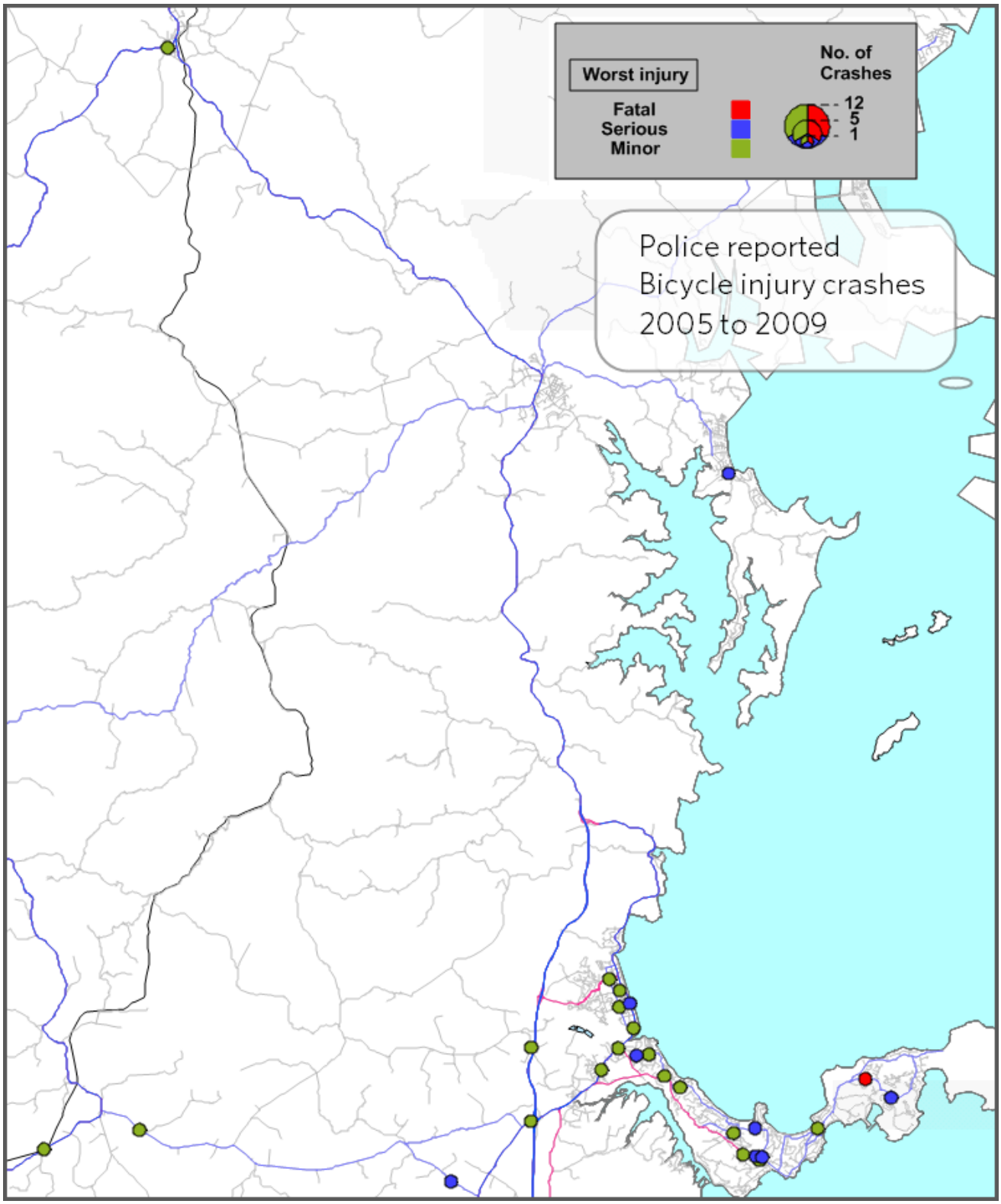
Crash locations - Fatal and serious crashes- whole region 2005 to mid 2010



Auckland Region cycle crash information

Crash locations— Rural Rodney and Orewa

Most cycling crashes in the region (95 percent) are urban in nature as well illustrated in this and the other maps that follow, however it is worth noting that there are routes in rural Rodney that are very popular with recreational cyclists. In particular State Highway 17 (including the Albany Hill).

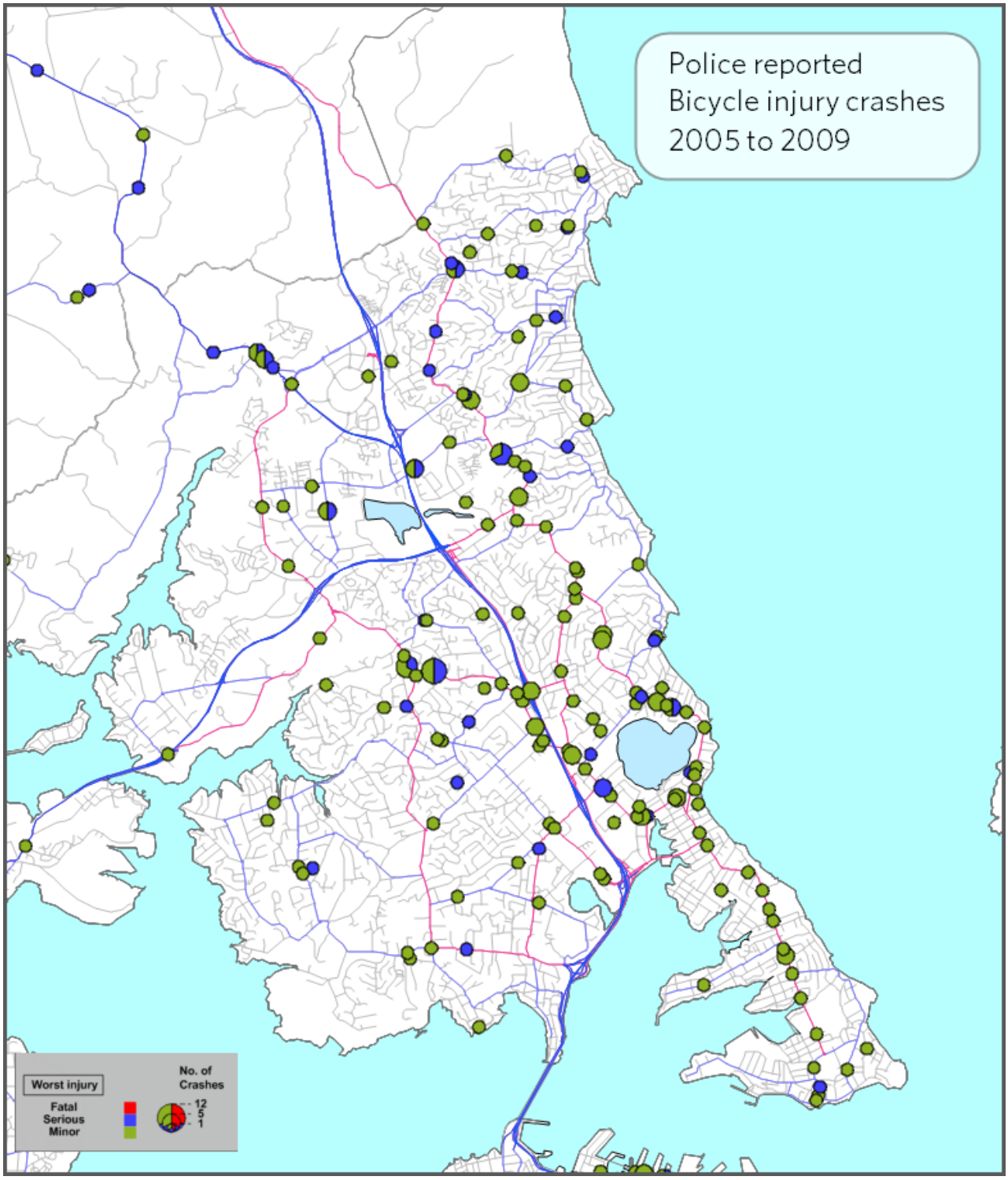


Auckland Region cycle crash information

Crash locations— North Shore

State Highway 17, a popular training and rural recreational route for cyclists, clearly shows on this map (upper left) as a route with a number of serious cycle injury crashes - especially in the Albany Village and near the restricted width bridge to the north of the village.

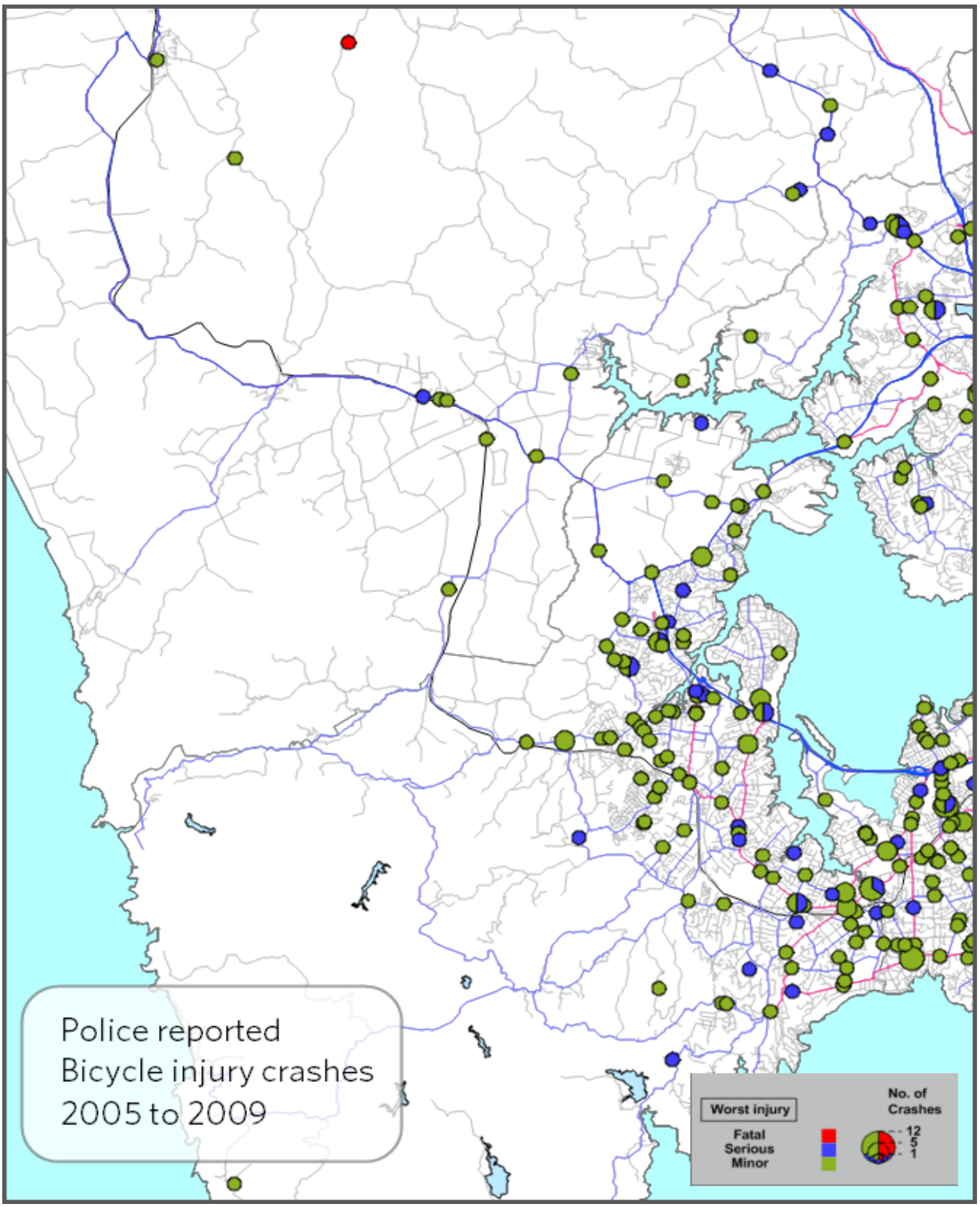
There are noticeable clusters of crashes near the junction of Glenfield Road and Wairau Road, on Milford Road (near the shopping area), on East Coast Road near Rangitoto College and on East Coast Road itself.



Auckland Region cycle crash information

Crash locations— Waitakere and southern Rodney

The map below of southern Rodney and Waitakere shows a cluster of crashes on Don Buck Road near Massey High, a large group of crashes in the New Lynn area and at the north end of Lincoln Road. Great North Road is also well represented. Also showing is the unresolved hit and run fatal crash on Peak Road in rural Rodney.



Auckland Region cycle crash information

Crash locations— Auckland City (west and central)

As Auckland City has a high number of cycle crashes there are three maps in this document showing crashes in the City, the first map below is of the western and central part of the city (see also the CBD map on page 20).

The worst cycle black spot in the Auckland region, Tamaki Drive and Ngapipi Road, can clearly be seen in the upper right of this map .

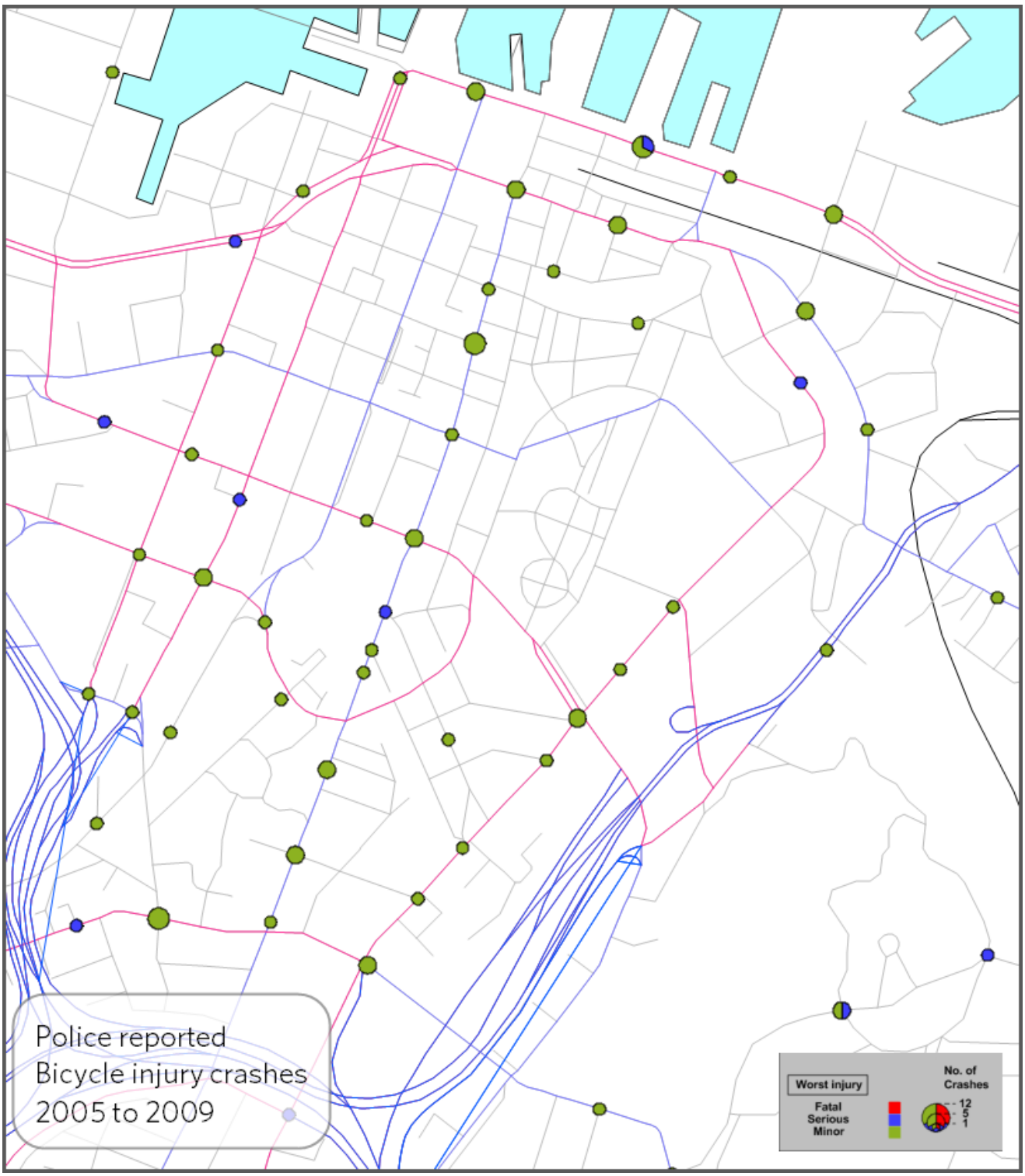
Cycle crashes in the city are grouped on the main routes and note the clusters in Newmarket area and on Queen Street.

Auckland Region cycle crash information

Crash locations— Auckland City (CBD)

The second map of Auckland City , the CBD, is shown below.

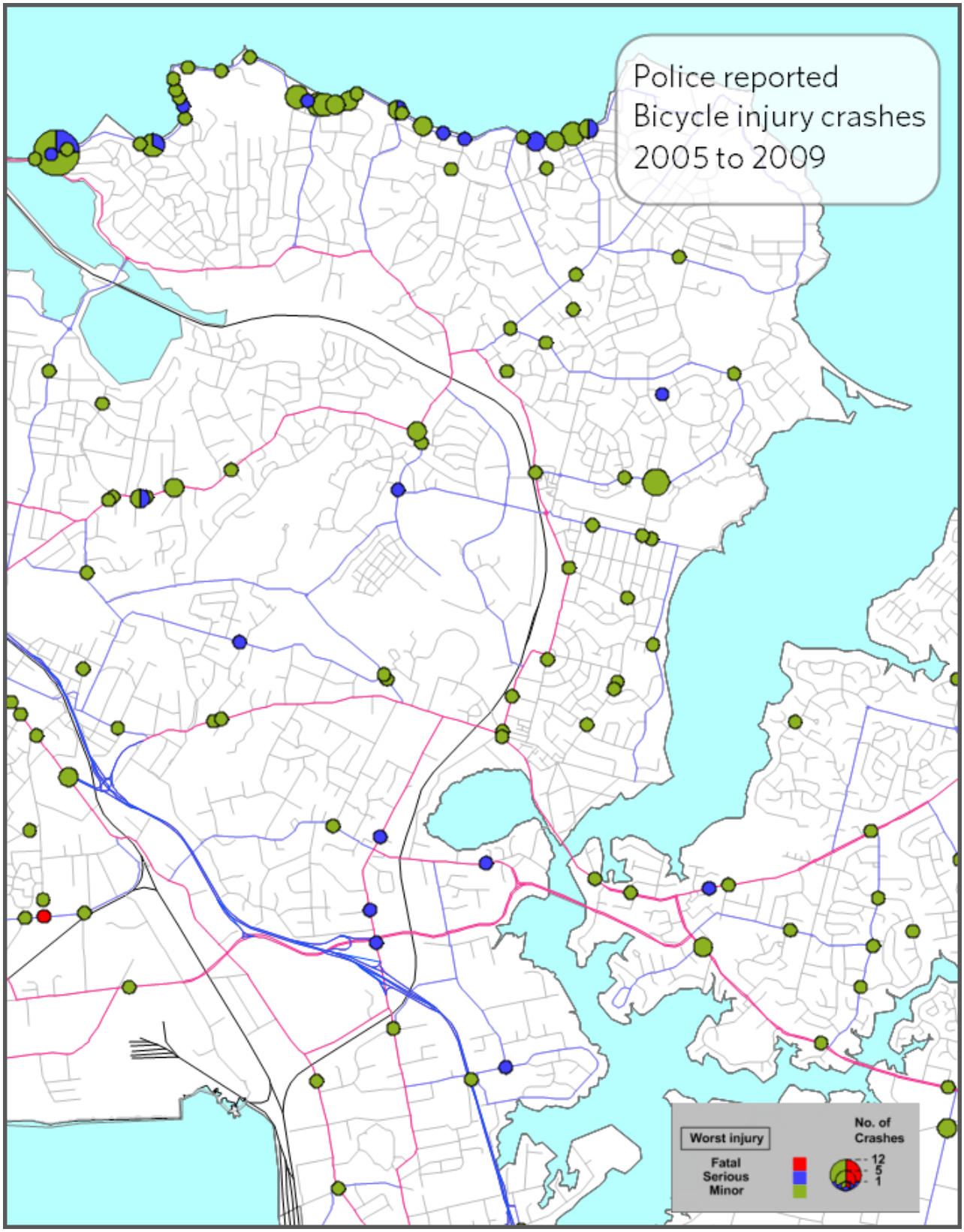
Most crashes in the CBD appear to be at intersections and particularly those on Queen Street and Symonds Street from Karanghape Road to Grafton Road.



Auckland Region cycle crash information

Crash locations— Auckland City (east)

The third map of Auckland City, the east, is shown below.
Tamiki Drive, a popular route with cyclists, stands out for its crash record especially the intersection of Tamaki and Ngapipi Drive. There is also a cluster of crashes on Remuera Road between Upland Road and McFarland Road.

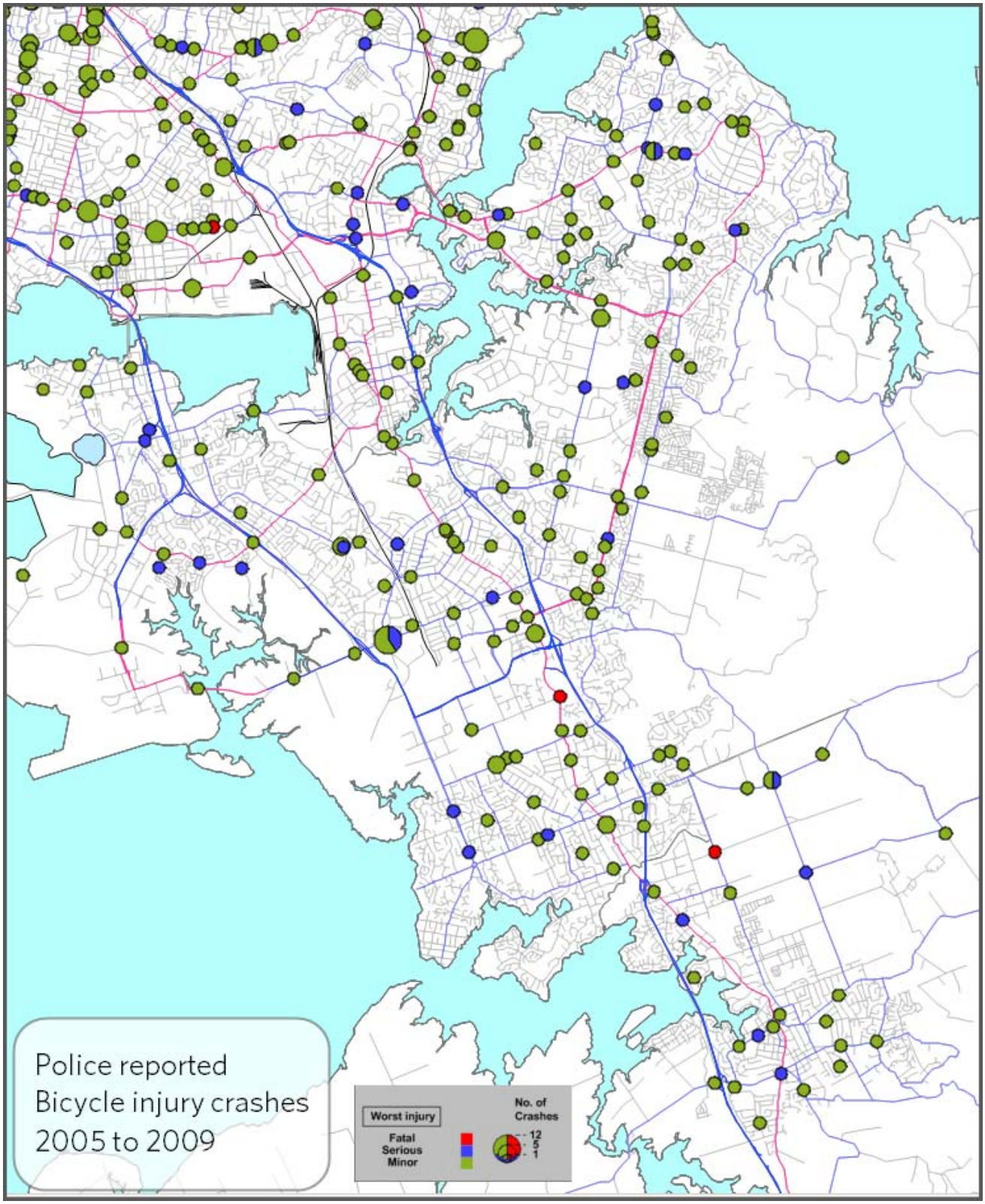


Auckland Region cycle crash information

Crash locations— Manukau and Papakura

Cycle crashes in these areas are clustered mainly on the arterial roads and often at intersections.

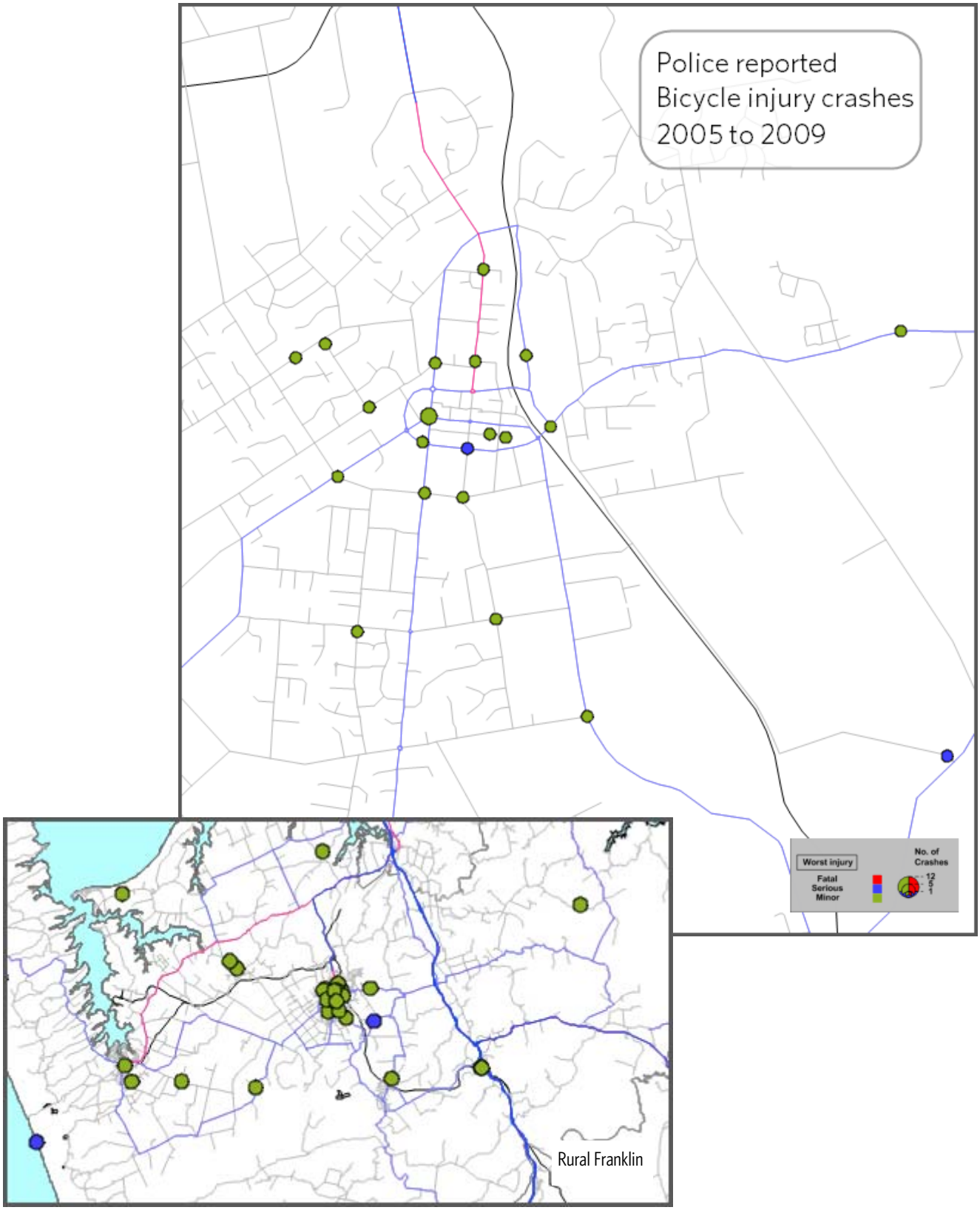
The regions number two cycle black spot on Puhinui Road can be clearly seen near the centre of this map.
There is a cluster including at least three serious crashes on Pakuranga Road to the east of Buckland Beach Road.



Auckland Region cycle crash information

Crash locations— Franklin rural and Pukekohe

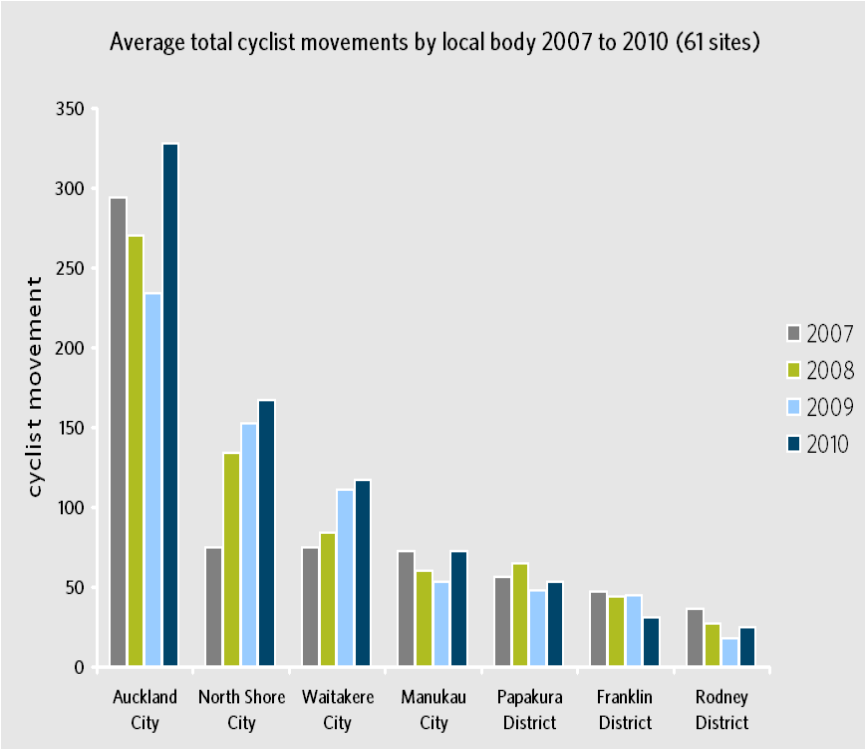
Cycle crashes in rural Franklin are largely spread out with no particular groupings and in Pukekohe itself mainly at intersections again with no location especially standing out.



Auckland Region cycle crash information

Traffic Volumes

In March 2010 Gravitas Research and Strategy Limited counted cycle volumes at 84 sites across Auckland as part of an ongoing project managed by the Regional Cycle Monitoring Working group (co-ordinated by the Auckland Regional Transport Authority). A total of 61 sites have been counted each year since 2007 and the results of these counts are shown in the chart below. The counts were undertaken during the morning and evening peaks.

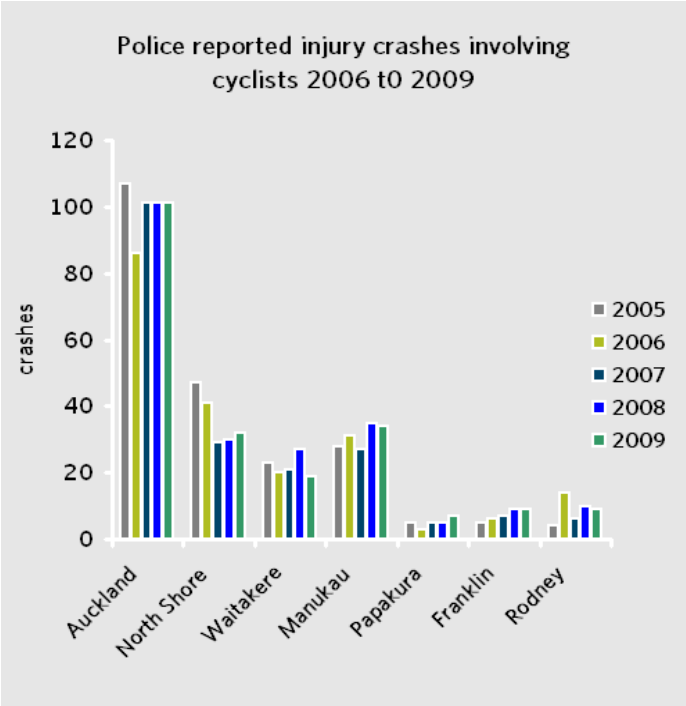


Data from the full 84 sites counted in March of 2010 is summarised below (these are extracts from the executive summary in the 2010 Gravitas report prepared for the Auckland Regional Transport Authority).

- Overall a total of 12,625 cyclist movements were recorded in 2010 at the same 81 sites which recorded 9937 moments in 2009. A statistically significant increase of 27 percent
- Cyclist movements across the sites monitored since 2007 have shown a statistically significant increase of 26 percent
- There have however been considerable variation between local bodies (see chart)

Brief Comparison with crash data

Injury crashes involving cyclists are shown in the chart on the right.
Note however, that as 2010 is not complete at the time of writing this note that we have not included crash data for that year even though there is cycle count data above.



Auckland Region cycle crash information

Useful links for further information

- "Getting around Auckland" Cycle Maps— MAXX Web site www.maxx.co.nz (type "cycle map" in search box) http://www.maxx.co.nz/info/how-to-travel/network-map-regional-guides.html

  Auckland Cycle crash information in Google Maps. Also linked via the Maxx website page . Type "cycle crash maps" in the site search box.

  "The Cycle Crash Maps identify the 200 most recent cycle vs motor vehicle crashes reported to the Police and entered into the Ministry of Transport's Crash Analysis System (CAS). If you regularly cycle a route, check out the crashes that have occurred and avoid hazardous areas."

- Ministry of Transport Household travel survey—http://www.transport.govt.nz/ (type "household travel survey" in the search box) many useful documents. Document below is a table builder with the latest mode share information

  Main Urban Area Household Travel Survey results to 2009_20JAN10

  http://www.transport.govt.nz/research/Documents/Main Urban Area Household Travel Survey results to 2009_20JAN10.xls

  There is also a link to a large summary document and a number of Ministry fact sheets , which can also be found by typing "fact sheet" into the search box. (See http://www.transport.govt.nz/research/Pages/CyclistCrashFacts.aspx)

  "Getting there on foot and by cycle" - http://www.transport.govt.nz/ourwork/Land/Gettingthere-onfoot,bycycle/ or type "getting there" into search box .
  "On 24 February 2005, the Government launched Getting there - on foot, by cycle, its strategy to advance walking and cycling in New Zealand transport.
  Getting there - on foot, by cycle aims to improve environments for walking and cycling, improve safety for pedestrians and cyclists, and increase the choice of walking and cycling for day-to-day transport. To achieve these goals, it identifies 10 priorities for action under four key focus areas.
  The Strategy will help to inform future decision making by central government, guide the work of its agencies, and act as an important point of reference for communities. The Ministry of Transport will lead and coordinate strategy implementation."

- NZTA web site . Type "Bicycle" or "Cycle" into the search box— also the bicycle road code , type "bicycle road code" into the search box. There is information about purchasing a bicycle , purchasing and fitting a cycle helmet, clothing and equipment. See also http://www.nzta.govt.nz/resources/cyclists-road-code/index.html

- Cycle Action Auckland— http://caa.org.nz/ , very useful links page— http://caa.org.nz/resources/link/

- Cycling Advocates Network — http://can.org.nz/ . Focused nationally.

- ARRB Group Limited— http://www.roadresearch.com.au - *"Welcome to the Road Research Register. This Register aims to be an online single source of reliable and current information on road-related research projects in Australasia, both current and recently completed. Federal, State and Territory Government organisations within Australia and New Zealand are contributing project information to the Register, with new information being added regularly".*
  Enter the register and type "bicycle" into the search box.

Auckland Region cycle crash information

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Regional fact sheets in this series

1. Pedestrian crashes Auckland Region (November 2010)
2. Bicycle crashes in the Auckland Region (November 2010)
3. Bus crashes Auckland and Northland (Second edition September 2010)
4. Truck crashes in Auckland and Northland (October 2010)
5. Motorcycle crashes in Auckland and Northland (October 2008— being updated November 2010)

Version date
011110 writer CLH