



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

The University of Waikato Travel Plan for the Hillcrest Campus

1. GOAL:

The key goal of this travel plan is to maximize the efficiency of travel to and from the site by encouraging the use of environmentally sustainable travel modes.

2. OBJECTIVES:

Main objectives of the travel plan are:

1. To ensure that any lack of access to the private car does not present a barrier to travel to the University through the promotion of a wide range of travel options that are available to everybody.
2. To raise awareness amongst staff and students regarding travel impacts and the benefits of multiple travel choices that are available.
3. To encourage improvements to the public transport systems that serve the University and its neighbouring catchment area.
4. To encourage walking and cycling access to campus through the provision and improvement of safe and convenient access routes.
5. To seek to reduce single occupancy car travel to and from the University by encouraging car sharing and trip planning.
6. To allocate rationally the parking spaces available and plan for their future allocation as the University develops.
7. To minimize the impact of the University-related activities on the neighbouring residents in terms of congestion; parking; pollution; noise.
8. To encourage the continuing health and welfare of all staff and students.

The travel plan aims to be a positive and constructive document that seeks to manage transport in ways that provide the right balance between ease of access and environmental concerns. It recognizes that there is not one particular form of transport suitable for all and that there need to be a number of

alternatives in place. It promotes flexibility of choice concentrating on encouraging a reduction in car use rather than outlawing it.

The travel plan is about everyone – that is, staff, students, contractors and visitors - making small changes to the way they travel. Together, everyone can make a significant change.

3. BROAD INITIATIVES

	Action	Short term steps	Long term steps
1	Develop an action plan matrix including the items in this table showing who will be responsible, which cost centres are involved, and what the timelines might be	<ul style="list-style-type: none"> Decide on capital vs. operational budgets and 2009, 2010, and 2011 or later options 	<ul style="list-style-type: none"> Revise annually
2	Improve patronage of RideLink carpooling service	<ul style="list-style-type: none"> Promote RideLink Improve policing of RideLink carparks (possibly with motion sensor cameras) Ensure that availability of RideLink carparks matches demand Assess other examples of carpool parking; compare and contrast with ours 	<ul style="list-style-type: none"> Promote the service on signs at busy intersections in campus vicinity
3	Lobby Hamilton City Council for more cycle lanes in the surrounding area	<ul style="list-style-type: none"> Work with Cycle Action Waikato 	
4	Lobby dairies and shops in the general city area to install bike racks – particularly the stops between home and University		
5	Install additional secure cycle storage facilities on campus	<ul style="list-style-type: none"> To be provided near the new Student Centre 	
6	Promote bus use	<ul style="list-style-type: none"> Investigate the supply of one free ticket to each student on enrolment Have bus timetables available in departmental reception areas Investigate the purchase of one BusIt card containing credit for each department that travels locally for meetings Investigate option of selling BusIt cards on campus (Dairy, Pharmacy, etc.) 	<ul style="list-style-type: none"> Promote the benefits of using the bus in staff and student orientation processes Investigate the provision of free bus use for all students Write submissions on the Environment Waikato Regional Land Transport Plan to expand bus running times and introduce student discount Investigate the provision of free bus use for all staff Discuss possible new bus routes/adjusted times with Environment Waikato Roll out directional signage for buses for inside the entrance of each building on campus

	Action	Short term steps	Long term steps
7	Implement charging for parking with proportion of funds distributed to sustainable transport options (e.g. bus tickets)	<ul style="list-style-type: none"> Proposal has been developed but awaits VC approval and go-ahead 	
8	Promote teleconferencing as an alternative to travel	<ul style="list-style-type: none"> Encourage Heads of Departments to always consider this option as a priority. Develop a communications plan to promote teleconferencing as a realistic, sustainable, plus cost- and time-saving option 	<ul style="list-style-type: none"> Aggressively expand teleconferencing and access grid (upmarket teleconferencing) services
9	Promote cycling facilities including showers and bike racks	<ul style="list-style-type: none"> Check that each shower on the list can be easily used Support and promote events during Bike Wise Month each February Provide additional covered and locked storage Upgrade/improve cycle routes on campus 	<ul style="list-style-type: none"> Lobby Hamilton City and Environment Waikato to begin installing secure bike parks at bus stops especially on the Orbiter route Promote cycling as an attractive travel choice in staff and student orientation processes
10	Promote walking to campus; install storage facilities/lockers where appropriate	<ul style="list-style-type: none"> Support and promote Walk2work day Improve pathways on campus including lighting Install umbrella stands in public foyers after consultation with receptionists Remove carparks where it would enhance common walking routes 	
11	Upskill staff on knowledge about bus routes and cycle facilities to pass on to visitors	<ul style="list-style-type: none"> Develop communication plan and regularly promote these messages in campus publications Establish a staff travel champion in each part of the University and relevant induction/training sessions 	
12	Link Student Centre users with sustainable transport options	<ul style="list-style-type: none"> Install signage showing bus routes and how to find bus stops Provide information about cycle routes/racks and RideLink website and parks in the building 	

4. WORKING GROUP

The Transport Working Group, as authorized by the Vice-Chancellor's Committee, comprises:

- Director, Facilities Management
- Staff representatives
- Student representatives (including one from WSU)
- Internal Communications Manager, Communications Office
- Representatives from Hamilton City Council and Environment Waikato
- Property Assistant, Facilities Management.

The Working Group will meet at regular intervals to set and monitor the various initiatives that have been put in place.

This version of the travel plan was developed by the Working Group along with input from the University's Communications Office.

5. IMPLEMENTATION PROGRESS

The current situation is shown in Appendices 1 – 5 which are attached.

Further surveys will be conducted in the years ahead to monitor the shifts in behaviour and the success of the plan.

The Working Group will assign priorities to the various initiatives and set targets for implementation in accordance with funding and staffing capabilities as well as the perceived urgencies of the various tasks.

6. COMMUNICATION PLANNING

A communications plan will be prepared and implemented by the Communications Office based around the proposed actions and outcomes in this travel plan. The communications plan will be constructed to relay the next steps and changes proposed to internal (staff and students) and external audiences.

The message will be distributed internally via channels currently in use (Official Circular, Community, Nexus, internal web and staff email etc), and potentially also by events run to help demonstrate to staff/students the benefits of moving towards a more sustainable travel strategy.

The external messages are likely to involve collaboration with Hamilton City Council and Environment Waikato and will include delivery channels such as the Waikato Times local community press, and the University website. Neighbours of the University who may be affected by travel plan initiatives will be communicated with specifically either by Hamilton City Council or by the University.

APPENDIX 1 – Background Information

APP 1a: Percentages of transport modes currently used - results from surveys

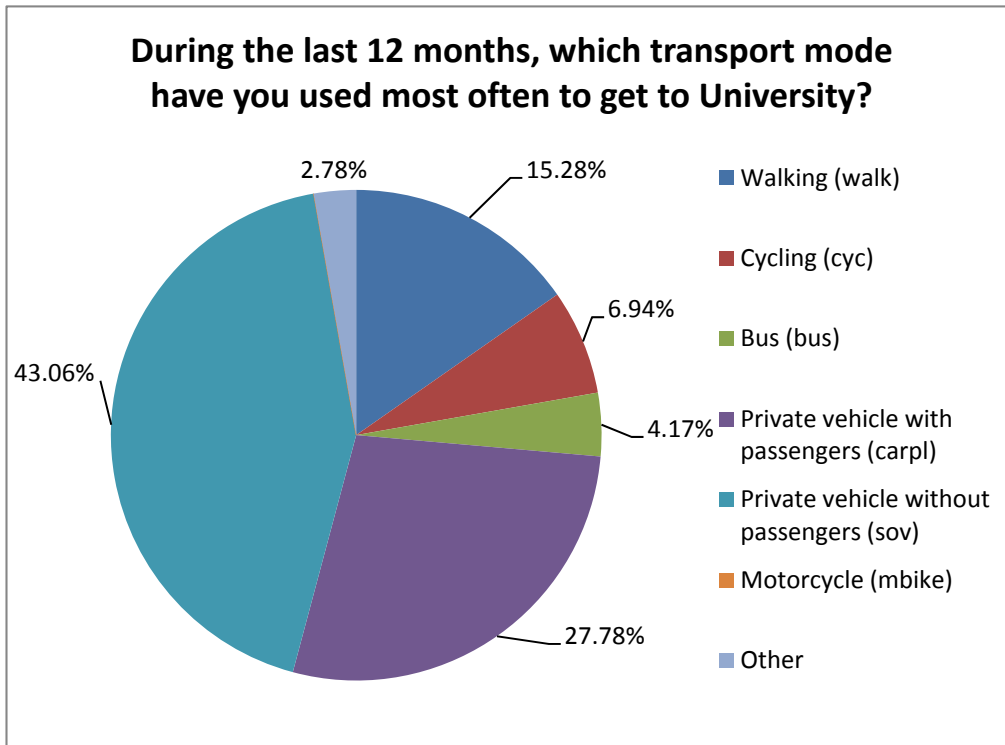


Figure 1.1 Staff travel modes – November 2008 survey (n=72)

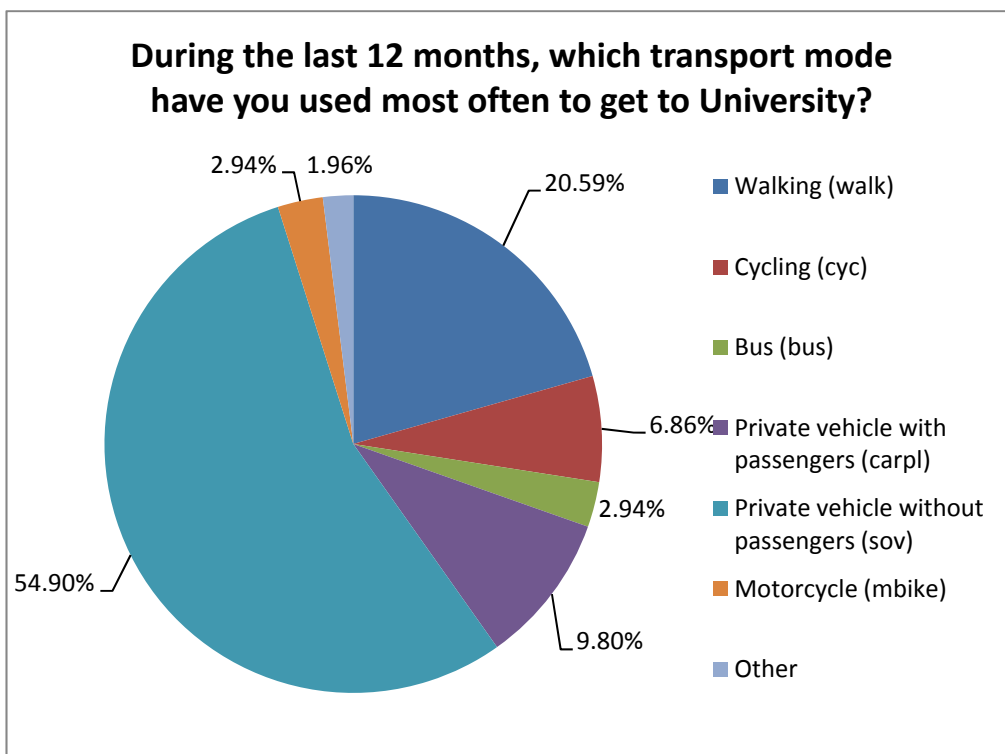


Figure 1.2 Student travel modes – November 2008 survey (n=101)

APP 1b: Distances that staff & students live from campus – results from surveys

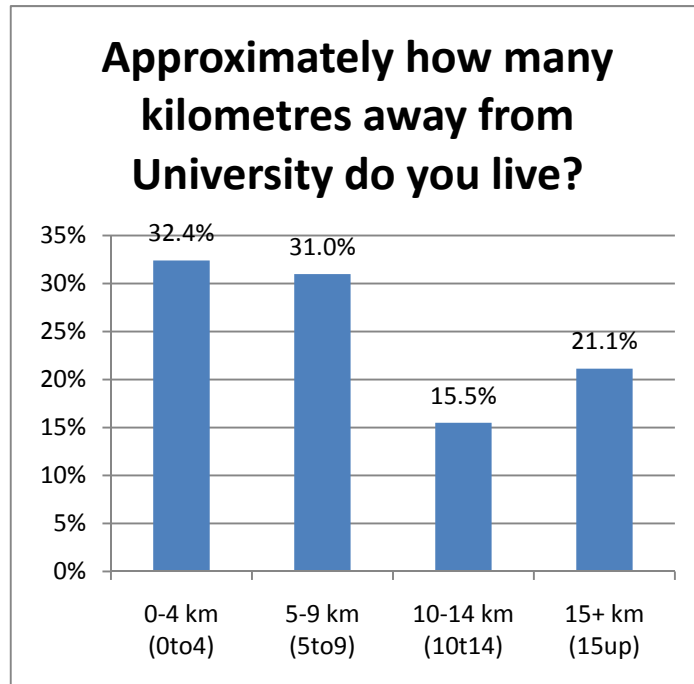


Figure 2.1 Distance between home and campus – staff

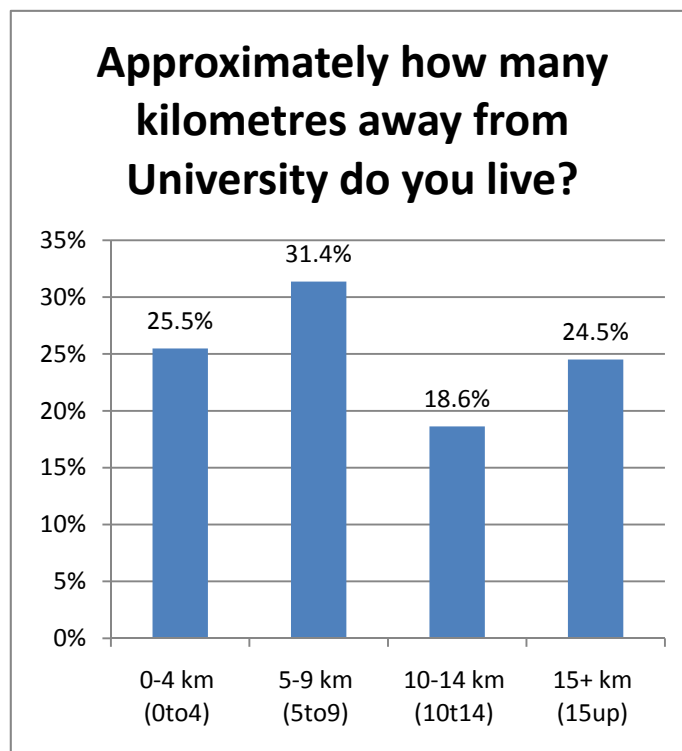


Figure 2.2 Distance between home and campus - students

APP 1c: Commentary on current facilities on campus & in vicinity of campus

Carparks

- There are currently 3,004 carparks – which is 628 more than required by existing city bylaws
- 14 of the parks are metered - all others are currently free of charge
- 35 RideLink carparks are on offer and the use of them is policed to ensure compliant usage
- Courier vehicles are discouraged on campus; almost all go directly to the University's mailroom
- A proposal relating to implementing paid parking is currently with the University's senior management

Ease of walking

- ✓ An extensive network of footpaths is provided on the campus, including a paved shared-use exercise path. Many paths have been widened for ease of use. The boundary fence has been lowered to encourage more walking on campus.
- ✓ Footpaths exist on all surrounding streets. The University arranged for pathways to be added to Silverdale and Ruakura Roads.
- ✓ Staff and students have access to some lockers, showers and changing rooms on campus
- ✗ Some intersections are not easy to cross (e.g. Ruakura/Knighton Road roundabout, Hillcrest Road opp. St. Johns, Knighton Road/Clyde Street roundabout)

Ease of cycling

- ✓ Hamilton is a relatively flat location
- ✓ Hamilton City Council has started developing a cycling network (see Appendix 2)
- ✓ Secure covered bike storage is available at G Block for a \$20 refundable fee and plans have been made for an additional facility near the Student Centre
- ✓ More than 1,000 bike storage spaces are provided in over 50 locations on campus (see Appendix 3) as well as a further 500 storage spaces in the vicinity of the Halls of Residence. Almost all of the bike racks on campus are visible from staff offices.
- ✓ 22 showers around campus are available free for use – all for staff and some for students. See Appendix 4 or www.waikato.ac.nz/go/bike
- ✓ Most of the approaches to the University include cycle lanes
- ✗ Some key buildings (e.g. IJK) do not yet include showers

Ease of bussing

- ✓ There are five bus routes servicing the campus (see Appendix 5). Four of those run 7 days a week
- ✓ A bus fare is \$1.80 with a BusIt card, and the patron can have unlimited rides for two hours
- ✓ A Night Rider bus service runs from the CBD to University areas on Friday and Saturday nights
- ✗ There is no bus directly linking the Riverlea and Cambridge Road area with the University
- ✗ There are very limited secure bike racks at bus stops around the City, limiting the viability of intermodal travel
- ✗ Whilst the buses service the campus well during peak periods, most of the buses stop running at approximately 7pm five days a week
- ✗ Not all bus services from other towns (e.g. Cambridge, Te Awamutu, Tauranga) stop at the University

APP 1d: Transportation scan from Campus Environmental Sustainability: Options and Opportunities Summary Report, AQUAS consultants, November 2008

2.4 Transportation

University-related travel includes daily commuting to and from campus by faculty, staff and students (locally and longer distance), plus long-distance travel of out-of-town students returning home during breaks. It also involves daily use of university vehicles by staff in their work, driving of rental vehicles by faculty or staff on university business, and related air travel.

The 'Transportation' page on the university's website (www.waikato.ac.nz/fmd/environment/transportation.shtml) covers a range of issues relating to daily travel to and from campus (UofW, 2008d). University policies on the use of rental vehicles address various requirements and other procedures are in place that determine fuel use (and resulting CO₂ emissions).

The environmental impact of vehicle use and travel is addressed in a range of university initiatives, but there is still room for significant gains.

2.4.1 Campus Commuting

Travel to and from campus is made up of car, bus and bicycle trips and travel on foot.

Private vehicles. A significant portion of the trips to campus is by private automobile. A Maunsell (2007) study estimated 13,113 trips per day during normal term time. During examination time, the estimate was 11,977 trips per day. A 2003 vehicle occupancy survey – done for one hour, early afternoon, late May – of incoming traffic recorded 171 vehicles. Of these, 123 (72%) were single occupancy and 37 (22%) had two occupants, with the remainder three occupants or above. (UofW, 2003b)

The university provides nearly 3,000 car-park spaces. There are 14 user-pay (metered) spots; otherwise, the general, staff, student, and visitor parking spaces are all free, with some areas requiring permits. Free parking is counter to the approach followed in some jurisdictions where 'pricing' is used as an incentive to shift transportation modes.

Careful study will be necessary to determine the best parking policies and pricing structure to achieve desired results. Koslow and van Heerde (2008) provide an excellent start to this in their summary of marketing research done by students in MKTG352A-08 entitled "Student Investigations into Car Parking Problems at the University of Waikato".

RideLink. The RideLink programme is an internet-based service to connect university students and staff – those looking for a ride and those with a vehicle who can provide one (matching for destination and schedules). The purpose of the program is to reduce the number of single-occupancy vehicles. The programme covers a broad geographical area, with 'rides' on the system to and from destinations such as Mt Maunganui, Rotorua and Auckland.

As an incentive, the university provides preferential parking for people who share rides to campus. There are 35 car park spaces labelled as reserved for registered RideLink permit holders (approximately 1% of total spaces available). There is limited monitoring of these spaces, however, so abuse of the system is possible. (The use of inexpensive motion sensor cameras to track use of these parking spaces has been briefly discussed.)

Data provided for this report shows that just 82 rides were arranged through this system in the first nine months of 2008. (RideLink, 2008)

Public transportation. The campus is generally well served by bus, with five routes coming onto or near campus. The fare is \$1.80 and payment is simple with the BUSIT card.

A review of bus ridership over one month (August, 2007), showed about 12,900 passengers getting on at stops closest to the university. Considering only weekdays/teaching weeks (and assuming very little bus use during the week of teaching recess in the data period), this would amount to an average of about 800 departures a day. This is a low level of bus use, given the student population. (Ridership data shows that about 90% of seats on buses serving the university are empty.) The Koslow and van Heerde summary of student investigations noted above reported less than 5% of those surveyed currently take the bus.

Informal feedback has suggested buses don't run late enough at night and arrival time could be better coordinated with lecture times. This could be examined with the service provider.

As a promotion, Environment Waikato provides free bus tickets to students during Orientation Week each year. Beyond this, there is currently no student bus card or any incentive to encourage regular bus use.

Active commuting. Those wishing to walk, run or cycle are also well looked after. There is a range of on- and off-road (cycle) paths around the city provided by Hamilton City Council. (A map of those in the vicinity of campus is provided on the 'Transportation' webpage).

There are bike racks in 72 spots around campus with covered racks in seven locations and a secure bicycle locker near G Block (accessible for a \$20.00 refundable key deposit). An audit of the bike racks is done twice a year, with the number of racks/locations adjusted accordingly. (The Grounds Manager reported a relatively low and decreasing use of the racks over the years, somewhat consistent with the timing of the import of cheap Japanese automobiles.) A count done on 13 March this year by FMD's Property Assistant found 170 bikes at 36 different racks (with 65 by the bus stop area at Gate 1).

Shower facilities are also available in 23 locations around campus (location list is on the webpage). Currently, these are only available for staff use.

Participation in this year's Bike Wise Battle with other employers in the city was a big success. This sort of activity event can be used to increase interest in cycle commuting and be the highlight of a promotional campaign.

2.4.2 University Vehicle Use & Travel

The university has a fleet of some 120 vehicles. The major users are School Support Services, Facilities Management Division and the School of Science and Engineering. Vehicles are also rented when travel requirements exceed the fleet size (e.g. School Support Services) and when faculty and staff are travelling on university business. Information on vehicle purchasing is included in Section 2.5 following. Details relating to vehicle use follow.

School Support Services. A fleet of 56 (mostly) cars are used by staff based out of offices in Hamilton, Tauranga, Rotorua and Gisborne for travelling to schools in their region. Vehicles average about 25,000 km per year each (total about 1.3 million km), with fuel costs currently running about \$175,000 annually.

The Regional Resources Manager, who arranges purchase of the vehicles and oversees fleet operation, says there is some attention to 'driver training' in office meetings but that more could clearly be done. (The Sustainable Business Network's Greenfleet programme addresses this in its educational component.)

Facilities Management Division. The fleet includes porter, mail, carpentry and service vans, and security and administration vehicles. These are largely driven on campus, so their use generally involves short trips and lots of stops and starts.

The grounds crew also have two utility vehicles, five 'mules' and two tractors. For the latter vehicles, quiet, light models are preferred (the *light* feature would contribute to fuel efficiency for this type of vehicle).

Science & Engineering. A School Technician managing the fleet reported 13 vehicles ranging from a car and station wagon to mini vans and 4-wheel drives. Vehicle use is off-campus and largely for field trips and research.

Rental vehicles. University policy notes that staff may not rent a vehicle above Class C (1.8 to 2.0L Compact Auto) unless the nature of the business is such that a van or 4-wheel drive type vehicle is necessary and prior approval is given.

Rental practices are being monitored and 2007 data provided for this study shows there were 897 rental-days in vehicles D Class and above covering 168,200km of travel. To the extent larger vehicles were not needed, excess petrol use and CO₂ emissions would have resulted. (City travel could possibly be done in smaller cars – A Class, 1300L, for example – which would further reduce costs, fuel consumption and CO₂ emissions.)

Air travel. Orbit Travel provides the university regular environmental impact report, including carbon emissions. Faculty and staff air travel in the first six months of 2008 covered 10,070,407 km (81% of it international) and involved 2,331 hotel room-nights accommodation (78% domestic). Resultant CO₂ emissions were significant, totalling 2.24 million kg.

2.4.3 Campus Travel Plan

Laurence (2008) circulated a proposal to the Vice Chancellor's Committee dated 28 May seeking support for FMD to develop and implement a university 'campus travel plan'. The plan is proposed as an excellent way for the university to demonstrate a commitment to sustainability, provide real cost savings and improve staff health and productivity.

The circulated document describes a travel plan as "a strategy for managing the travel generated by an organisation, with the aim of reducing its contribution to traffic congestion and carbon emissions". It notes that typically travel plans support walking, cycling, more use of public transport, and car sharing. Communication, support and incentives are generally used to encourage travel behaviour change.

Initial efforts include:

- Development of a travel survey questionnaire for staff (targeting distribution in October)
- Follow-up with a similar survey of students
- Formation of a transport working group – staff, students and specialists from the community – to guide the effort (targeting start-up before close of the university for the year).

This is a sound proposal, providing a systematic approach to address campus travel issues and encourage and promote a shift in transportation practices. The relatively flat terrain in Hamilton, many wide and quiet streets in the vicinity of the university and good bus service are all features that will help to create a positive environment for change.

'Smart' Travel

The journey so far ...

- Ridelink programme to encourage car sharing.
- Good public transportation servicing the university.
- Cycle paths, secure bike racks and showers to support active commuting.
- Some good promotion and encouragement (e.g. Bike Wise Battle)
- Rental car policy discouraging use of vehicles with higher petrol use/emissions.

2.4.4 Progressing Sustainability

Future efforts to progress sustainable transportation could include ...

Easy Options

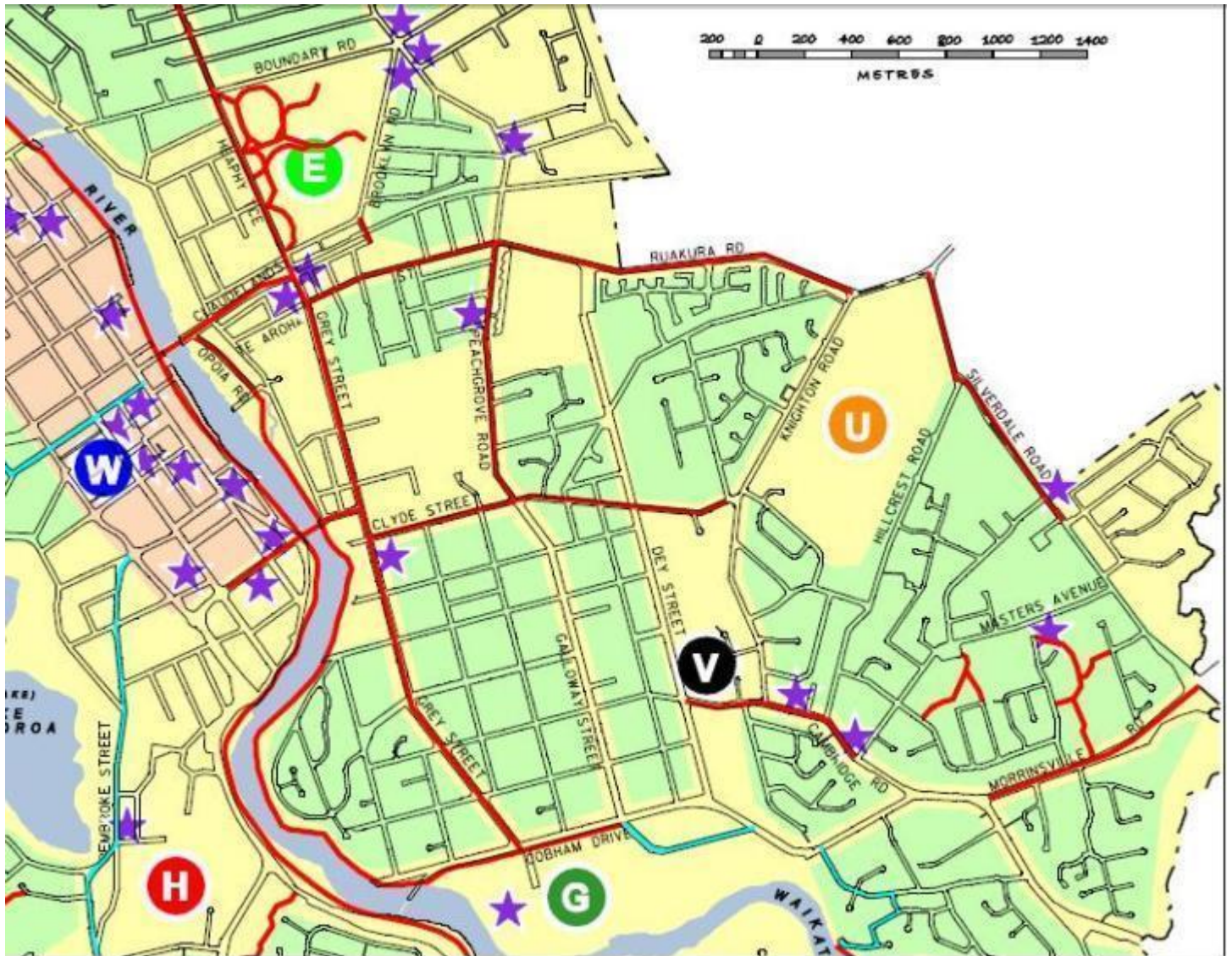
- Proceed with the Campus Travel Plan initiative as an overall organising structure for efforts in this area.

- Follow up on the Environmental Policy Committee's submission to the city council's public transport plan (around increasing bus service).
- Provide access for students to shower facilities on campus.
- Add additional bicycles to the vehicle fleet and encourage staff to use them (or walk) to meetings, appointments, etc., on campus whenever possible.
- Join the Tertiary Green Bike Program (through the New Zealand Green Bike Trust) as a way to encourage the use of low-cost sustainable transportation.
- Provide 'Greenfleet'-type educational initiatives addressing fuel-efficient driving.
- Review fleet maintenance practices with respect to environmental impact (e.g. tune-ups, tyre inflation, emission testing).

Other Opportunities

- Research pricing policies for parking with respect to effectiveness in changing travel behaviour, then institute appropriate charges for car parking.
- Pursue inclusion of a bus pass in general student fees as an incentive to increase bus ridership (could be subsidised by vehicle parking charges).
- Consider joining the SBN Greenfleet programme.
- Assess logistics and potential (costs and benefits) to convert some vehicles (eg. vans used for long-distance travel) to LPG fuel.
- Review the environmental impact of air travel and explore ways to reduce it.

Appendix 2: Cycling routes surrounding University campus



As published by Hamilton City Council February 2009

Appendix 3a: List of cycle storage locations

	23-Apr-09	14-Oct-08	12-Sep-07	9-May-07
Weather:	<i>warm and sunny.</i>			

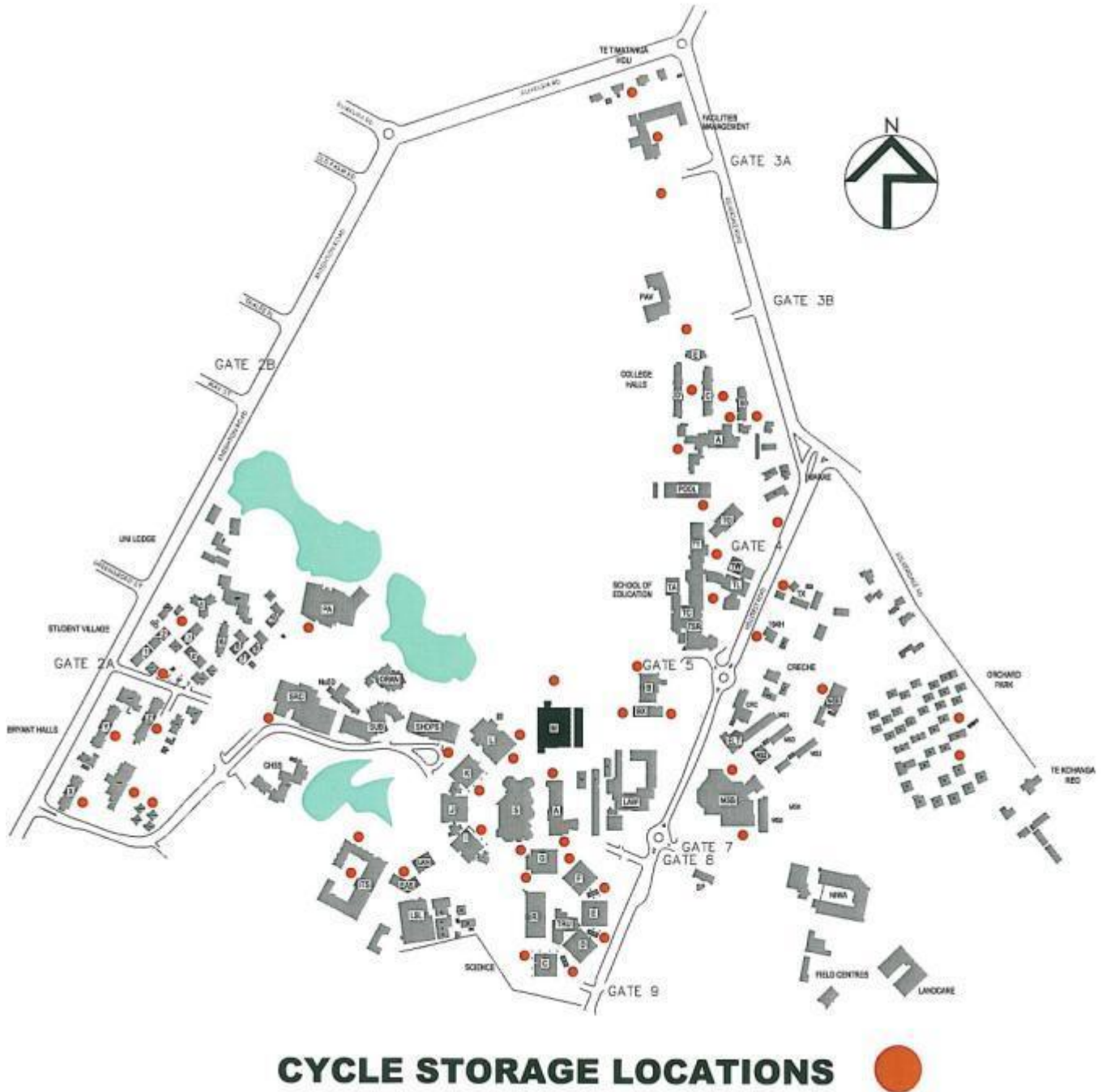
Rack Dot	Location	No. of Parks	No. of Bikes	No. of Bikes	No. of Bikes	No. of Bikes
1	ITS courtyard	10	4			
2	ITS courtyard	10	5	4	5	7
3	ITS lakeside	10	10	1	6	6
4	EAS	10	5	4	0	4
5	Bryant Halls	10	0			
6	Bryant Halls	10	0			
7	Bryant Halls	10	0			
8	Bryant Halls	10	9			
9	Bryant Halls	9	0			
10	Bryant Halls	9	0	3	15	5
11	Student Village	24	1			
11a	Student Village	228	8			
11b	Student Village	7	5			
12	Student Village	14	0	12	5	20
13	Performing Arts Academy	20	0	0	0	2
14	Rec Centre (north)	10	1	1	0	0
15	Rec Centre (south/front)	15	10	8	11	3
16	Bus Stop	10	1			
17	Bus Stop	20	5			
18	Bus Stop	10	16			
18a	Bus Stop	10	11			
18b	Bus Stop	10	8			
18c	Bus Stop	10	9	28	29	64
19	L	31	6	0	6	10
20	K	20	3			
21	K	20	4	9	6	8
22	I	20	5			
23	I	23	2	6	10	7
24	G Grnd	20	1			
25	G Grnd	20	0	0	0	0
26	A south	20	1	1	6	5
27	DGS	10	0	0	0	0
28	F-G	20	1	0	0	2
29	G Basement lock-up	20	5	0	0	11
29a	G Basement	10	3			
30	G Basement	10	0			
30a	G Basement	10	4			
30b	G Basement	10	5	18	8	9
31	E-F	10	3			

32	E-F	10	1			
33	E-F	10	5	9	7	9
34	D-E	10	2	2	1	4
35	C-D	20	3			
36	C-D	18	3	4	10	9
37	C	20	5	0	11	8
38	A north	20	3	5	2	8
39	LAW south	20	2	1	0	0
40	BX	6	2	1	0	0
41	B north	18	0			
42	B north	19	0			
43	B north	20	0	0	0	2
44	Library (M) north	20	3	0	0	1
45	Library (M) west/Bennetts	20	0	0	0	5
46	TC west	10	1	0	1	0
47	TA	10	0	0	0	1
48	TC west	20	0			
49	TC east	10	1			
50	TC east	20	2			
51	TT	10	2	0	2	5
52	College Halls	52	19			
53	College Halls	19	16			
54	College Halls	20	2	7	11	18
55	Pavilion/ Gate 3b	20	2	0	0	0
56	FMD courtyard	9	3			
57	FMD courtyard	2	0	2	0	0
58	FMD south/ Gate 3a	8	0	0	0	1
59	TTH	7	1	0	0	2
60	ELT	20	1	0	0	1
61	MSB south/ MS8	20	1	0	3	0
62	MSB south/ level 2	10	0			
63	MSB south/ level 2	10	1	4	3	5
64	MSB north/ level 0	10	3	3	4	2
65	MS6	6	0	1	2	0
66	Orchard Park	10	1			
67	Orchard Park	7	1	3	10	13
GROSS TOTALS		1301	237	137	174	257
Less Parks & Bikes at Halls		439	62	25	41	56
Totals excl. Halls		862	175	112	133	201
Gross usage 2009			18%			
Usage excl. Halls 2009			20%			
Note: For 2007, 2008 the numbers of bikes have been aggregated at the various locations. Gross usage % in 2007, 2008 not calculated as rack no's have fluctuated slightly.						

Covered bike racks:

- Between Library and Bennett's Bookshop
- Hillcrest side of K Block
- Hillcrest side of I Block
- ITS near courtyard entrance
- between E & F Blocks
- between E & D Blocks
- between C & D Blocks

Appendix 3b: Map of cycle storage locations



Appendix 4 - Showers available for use by staff and students

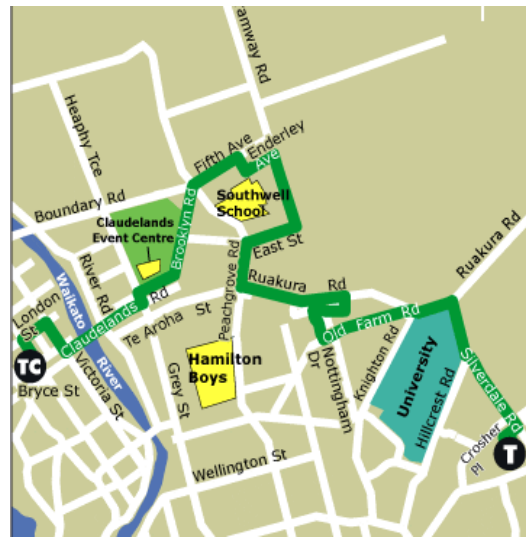
Building	Location	Comments
B Block	3.17	Unisex
D Block	G.13 & G.03	Unisex & Men's (respectively)
E Block	G.03B	Unisex
Facilities Management	G.53 & G.32	Unisex
G Block	B.03	Unisex - Key card at Reception G.20
Grounds Workshop	G.03A	Unisex
ITS	G.79	Unisex
Large Scale Lab	G.01	Card access to building, unisex
MS8 (Management School)	Men (G.13), Women (G.12)	Limited access, via code
Performing Arts	Men (1.46), Women (1.51)	Only for - building staff, classes, performers.
R Block	Men (2.01), Women (2.03)	
RS1 (Ruakura Campus)	G.07	Unisex
RS3 (Ruakura Campus)	G.24	Card access to building, unisex
RS 5 (Ruakura Campus)	G.17	Unisex
Sports & Recreation Centre	Ground floor	Must have membership to access
School of Education (TG)	Men (1.01), Women (1.11)	Near gymnasium. 4 showers each location
Te Timatanga Hou (TTH2)	G.09	Unisex

Appendix 5a: Bus routes to campus

13 University



15 Ruakura



17 Ham East/Uni

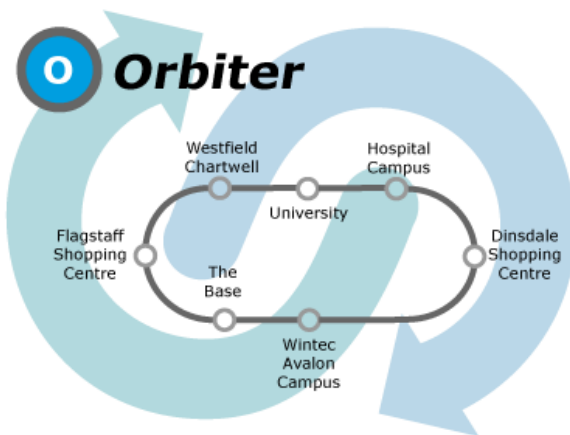


2 Silverdale



TC Transport Centre (Bryce Street) T Terminus CM Cemetery (Wed & Sat only)

52 Orbiter



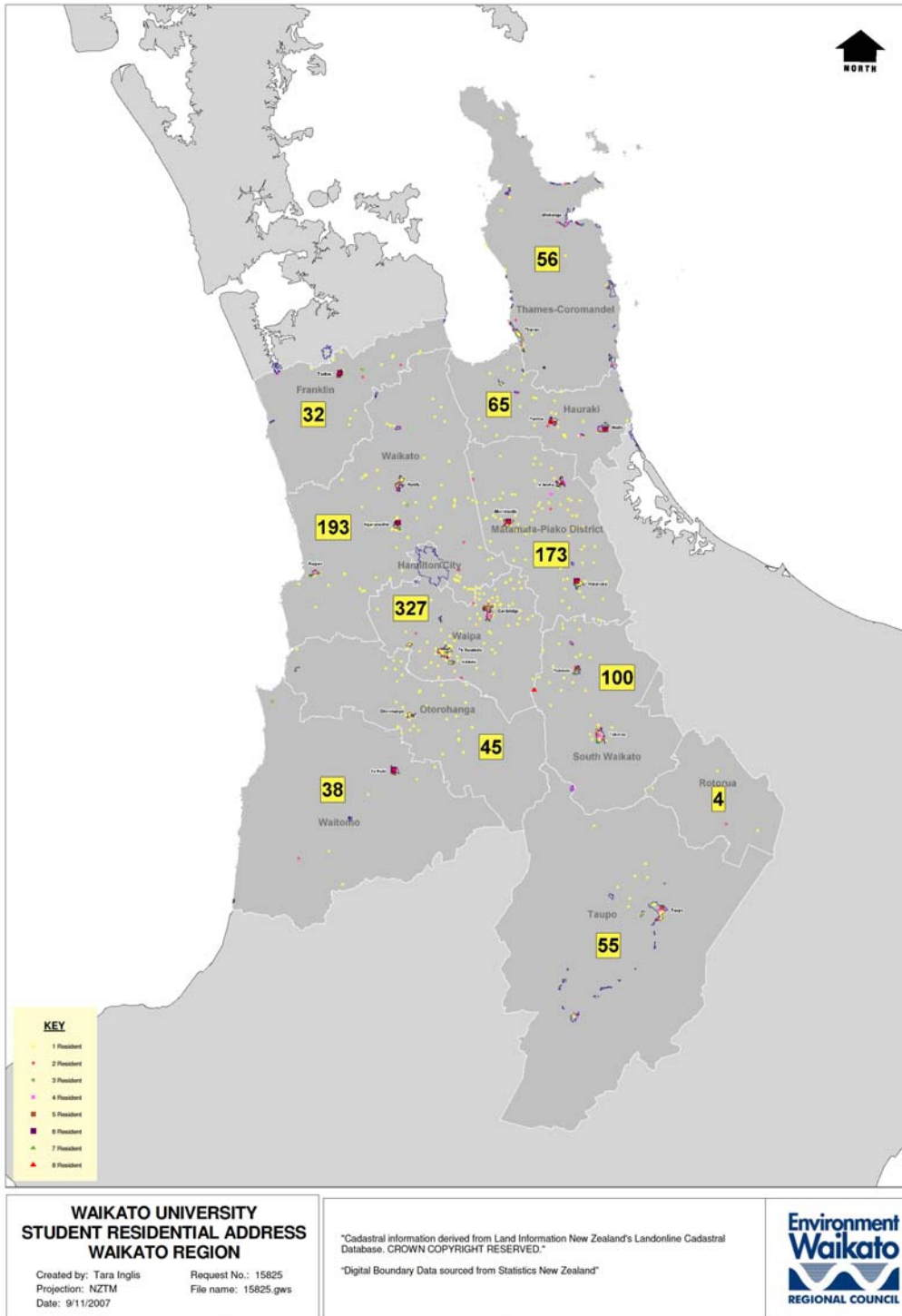
SD Silverdale Direct

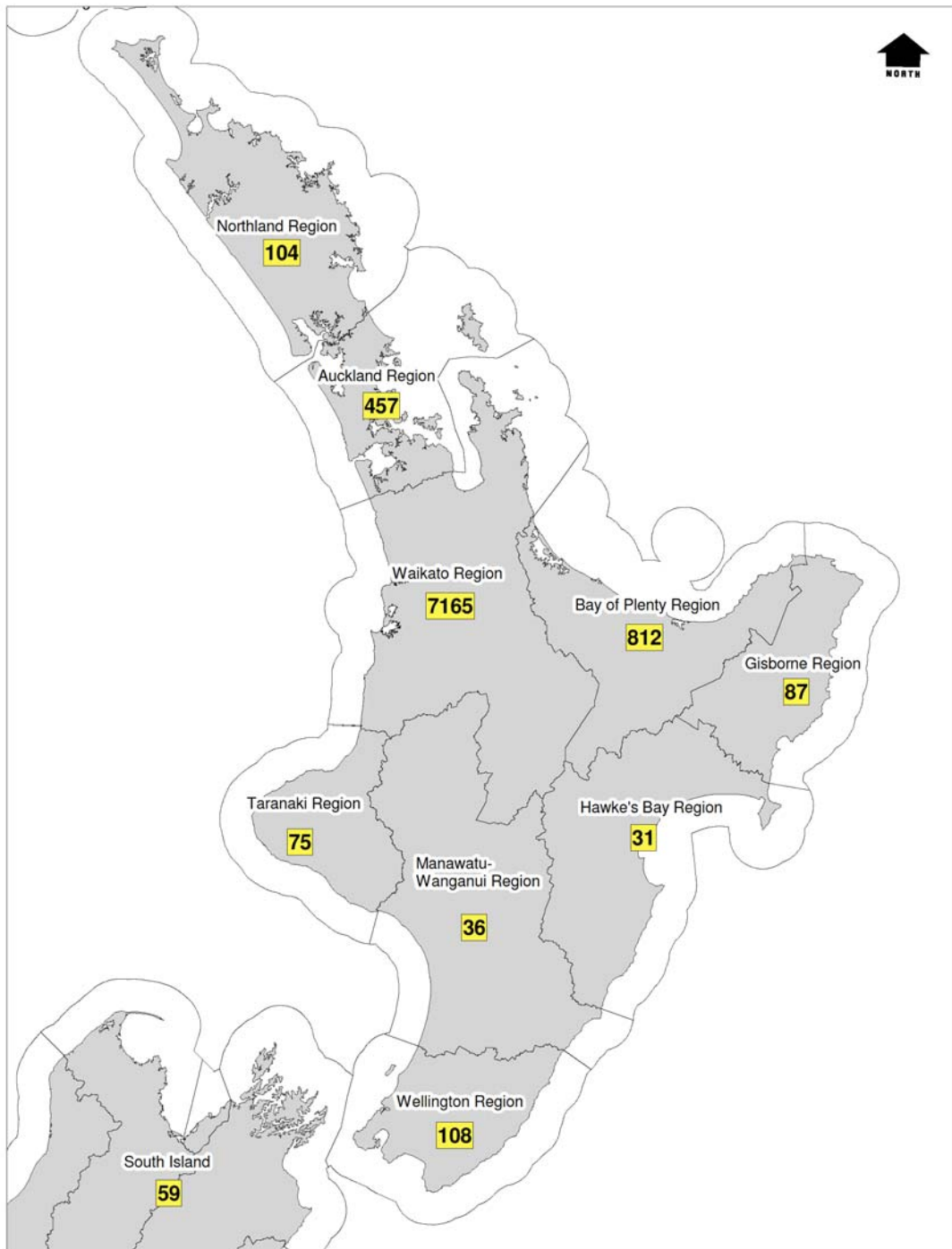


Appendix 6: Residential locations of staff and students

as at October 2007

See documents that follow: student Hamilton map; student Waikato map; student New Zealand map; staff Hamilton map





**WAIKATO UNIVERSITY
STUDENT RESIDENTIAL ADDRESS
NEW ZEALAND**

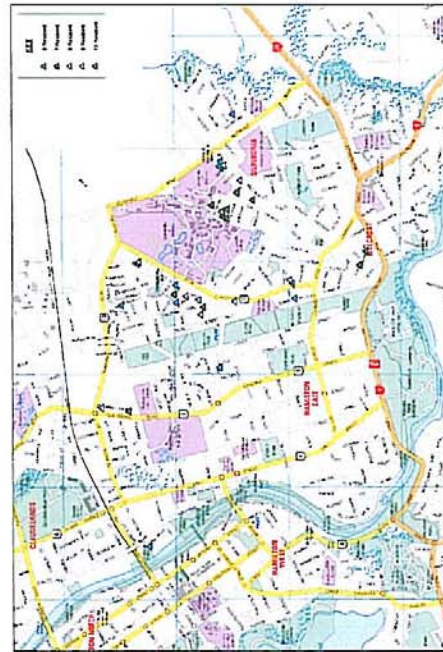
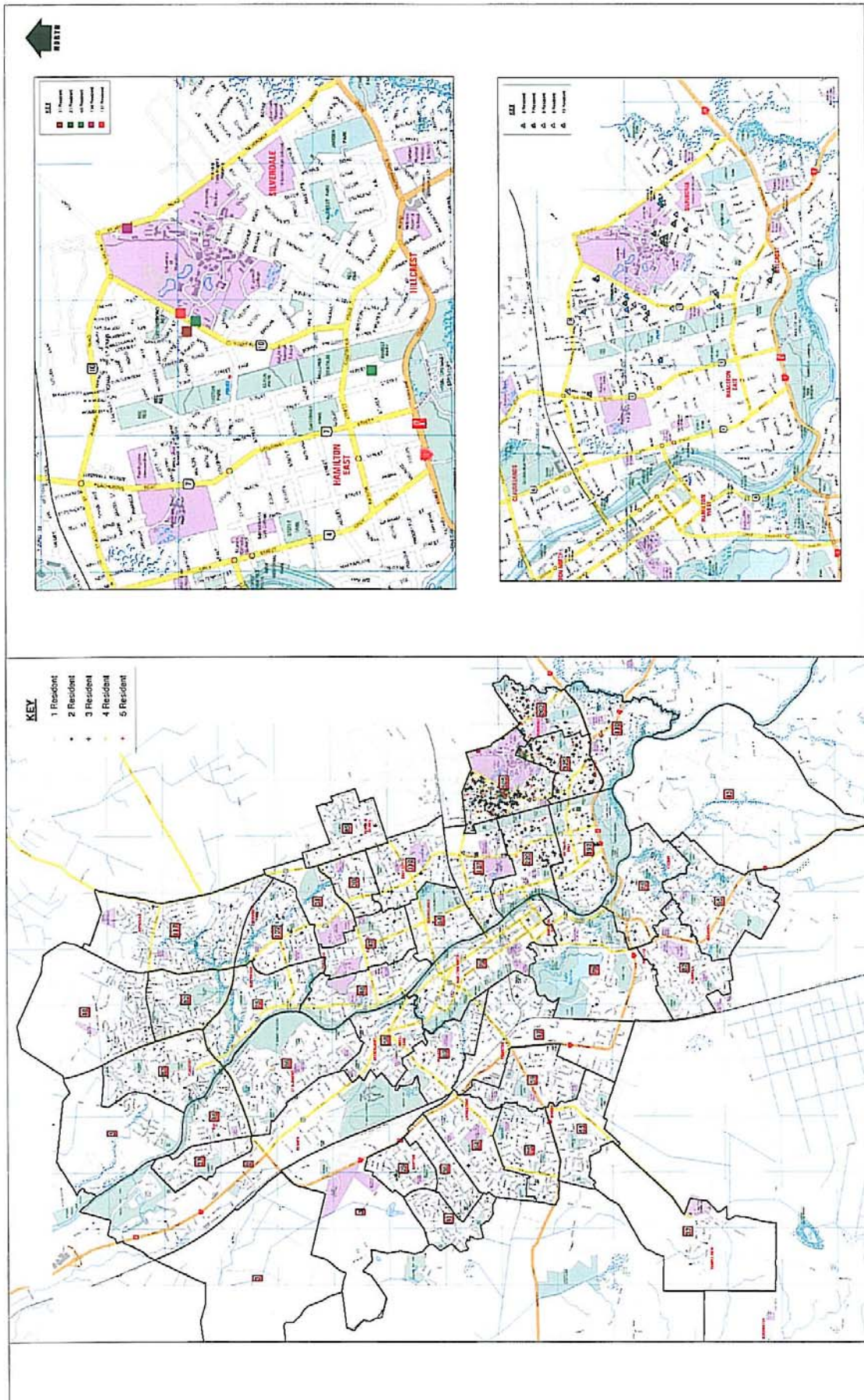
Created by: Tara Inglis Request No.: 15825
Projection: NZTM File name: 15825.gws
Date: 9/11/2007

Cadastral information derived from Land Information New Zealand's Landonline Cadastral Database. CROWN COPYRIGHT RESERVED.

Digital Boundary Data sourced from Statistics New Zealand



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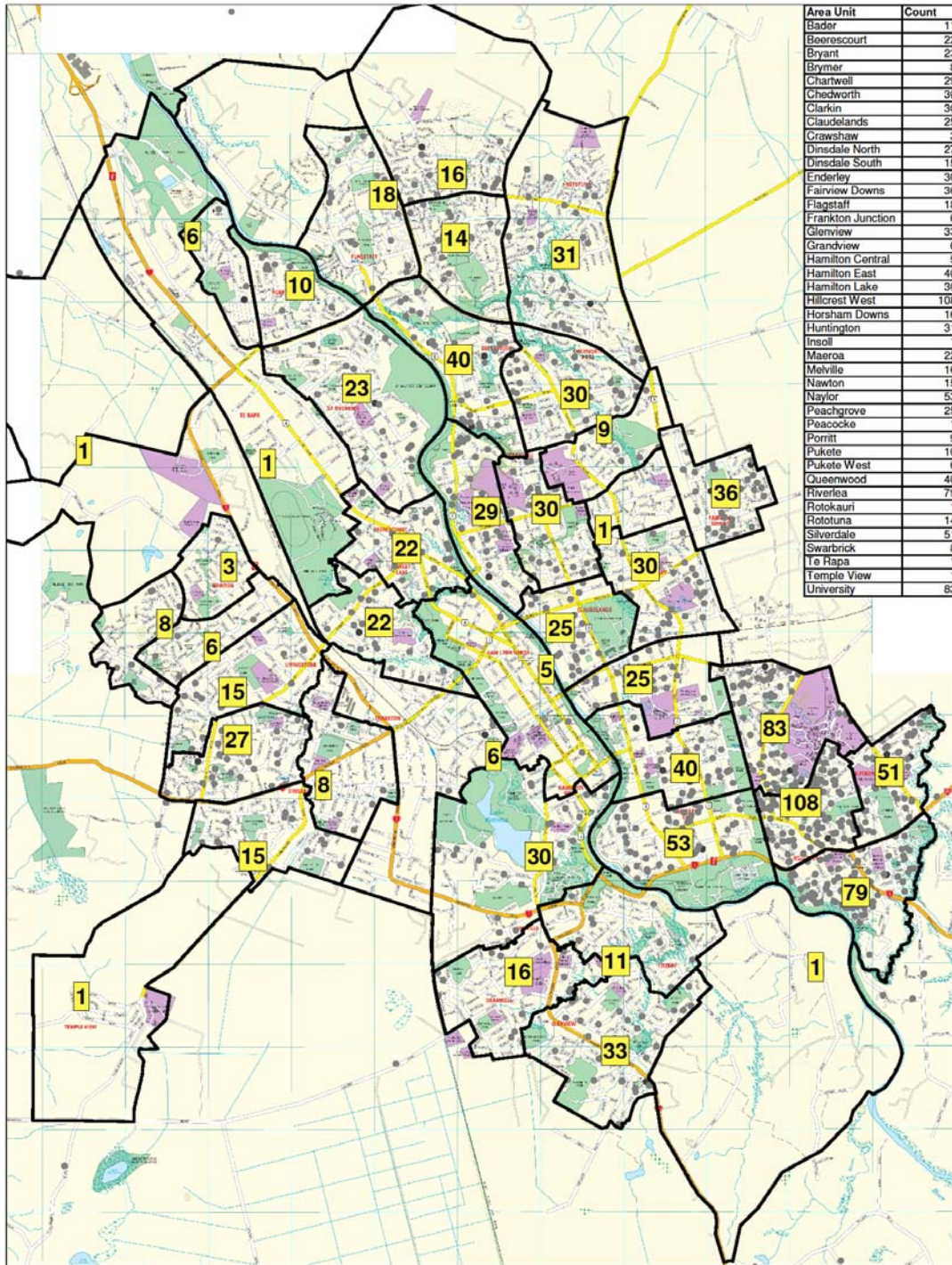
**WAIKATO UNIVERSITY
STUDENT RESIDENTIAL ADDRESS**

Created by: Tara Inglis
Projection: NZTM
Date: 5/11/2007
Request No.: 15825
File name: 15825

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WAIKATO UNIVERSITY STAFF REGULAR - RESIDENTIAL ADDRESS

Created by: Jacoly H
Projection: NZTM
Date: 07/03/2008

Status: Draft
Request No.: 16290
File name: 16290 - University of Waikato Staff Address.gis

KEY

A Number of Addresses per Area Unit

Census2006 Area Unit Hamilton

Regular Staff

- 1 Resident
- 2 Residents

0 2 4 6 8 10 12 14 16 18 20
Kilometres

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Addresses supplied by the University of Waikato

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