



27th Australasian Transport Research Forum, Adelaide, 29 September – 1 October 2004

Paper title: Reducing the number of cars that commute to Flinders University

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Abstract (200 words):

Flinders University's Bedford Park campus is located in the southern suburbs of Adelaide. It has a population of over 13,000 students and 1000 staff commuting to the campus on a daily/weekly basis. Each year there is an increase number of cars travelling to and from its campus. In the past, new car parks have been built to meet this demand. In March 2003, the University opened The Green Transport Office to show its commitment to developing realistic yet innovative methods to reduce the number of cars commuting to and from the campus. It encourages people to cycle, walk, carpool and catch public transport, while evaluating these modes to ensure that they are efficient so that they can have them improved so that the population will use them. The University sees the Office as a necessary component of its administration, from an environmental perspective and as an important solution to the economic dilemma that the University faces should the number of people driving to the campus continue to increase. Strategies that offer long-term solutions are currently being implemented to ensure that the University does not need to build additional car parks. These include the introduction of transport specific questions in the bi-annual student survey, improved promotional materials, the establishment of the first Transport Advisory Collective at the campus and a university specific Travel Plan.

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Introduction

Flinders University is situated in Bedford Park, a low-density suburb approximately 12km south of Adelaide. A study conducted in 2001 showed that over 50 percent of the people frequenting the campus drive by themselves in a car on most days of the week. Flinders University has a total of 4,700 car parking spaces available for a variety of permit holders.

Since 2001, there has been an average of 4,504 full year general permits sold each year. During the same period, there have been an average of 1,040 semester one and 1,270 semester two permits purchased. There are 4,176 general parking spaces available for these permit holders to park in. For the first four weeks of the two semesters during the year, most students frequent the campus more regularly until their time table has stabilised. This presents additional pressure on the available parking spaces.

The Division of Buildings and Property at the University has perpetuated the cycle of supplying more carparking infrastructure every two to three years, as a method to satisfy the people travelling to the campus in their cars, particularly during the first four weeks of the semesters.

The University's interest in sustainable transport as an alternative to address car parking demand became evident when, in 2003, it opened the Green Transport Office. The Office was a direct response to the recommendations outlined in the 2001 Green Travel Study that was conducted by the campus Rideshare Coordinator and the Smogbusters SA Coordinator.

Since the Office has been open, its primary task has been to encourage walking, cycling, public transport use, car pooling, work practices that reduce the need to travel and efficient use of the car if it needs to be used at all.

The Office has done this by inventing initiatives, in partnership with external organisations and government departments that promote sustainable transport and provide financial incentives and prizes to encourage people to use them. The office has also made minor changes to how transport systems operate (car pooling) and established a direct line of communication with public transport service providers so that the public transport needs of the campus population are known and responded to.

These initiatives have not significantly increased the number of people who choose to use sustainable transport instead of driving their cars. The Division faces extreme pressure on car parking infrastructure every new semester with serious consideration being given to building another car park to relieve the situation.

The Green Transport Office, with support from the Division, has extended their role by evaluating transport patterns of the campus population through the bi-annual student survey, and counting the number of people who get on and off the buses that come to campus. Also, the Office has begun reviewing the access for sustainable transport to the campus.

The Green Transport Office faces a serious challenge to change the travel patterns of its population, with the University being required to provide enough spaces so that Flinders remains an attractive and accessible campus from all areas of Adelaide. The support that the Division and the University offer to the Green Transport Office is strengthening with the University wanting to avoid the construction of any new car parks in the near future.

Flinders University

Flinders University is located approximately 12kms south of the Adelaide Central Business District (CBD) in the low-density suburb of Bedford Park. The campus is spread over 165 hectares and incorporates thousands of trees and areas of natural bushland. The site is elevated and offers panoramic views of the CBD and nearby coast.

Figure 1: Photographs of Flinders University



Flinders University is one of South Australia's three Universities. It offers more than 160 undergraduate and postgraduate courses as well as higher degree research supervision across all disciplines.

There are currently 13,171 students attending the University with 654 academic staff and 940 other staff. International students make up 10% of the on-campus student population.

Four faculties exist at the University these being, the faculty of Education, Humanities, Law and Theology, the faculty of Health Sciences, the faculty of Science and Engineering and the faculty of Social Sciences.

The University has a number of well stocked libraries to support the teaching and research functions.

The administrative structure is comprised of the Vice Chancellor, Pro-Vice Chancellors, and the Deans for each faculty, the Executive Director of Administration and five Administrative Divisions of the University.

The provision of car parking and transportation to and around the University is the responsibility of the Division of Buildings and Property. In 2003, this Division established a Green Transport Office to assist in meeting the parking demand through the provision and promotion of energy efficient and sustainable transport options for the University population.

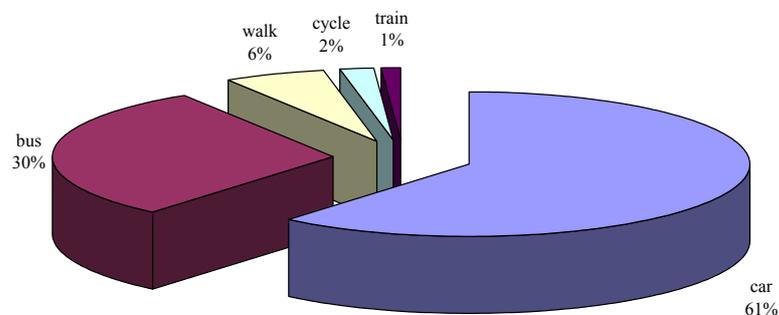
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Travel patterns and transport management

In 2001, the University Rideshare Coordinator and the Conservation Council of South Australia's Smogbuster Officer conducted a travel study for the University. Part of the study was to distribute a survey to 700 students asking them about their travel patterns. The findings revealed that the predominant mode of transport used by the student population was the car, with the bus being the next highest mode used (figure2).

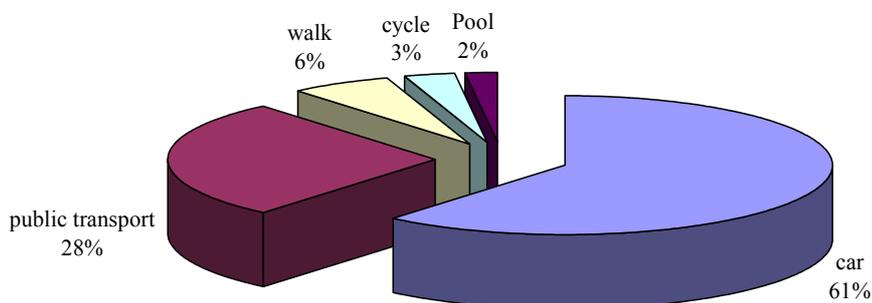
The findings from the Transport Study reiterate similar percentages for car, bus and train (public transport) use that were present in a 1992 study conducted on behalf of the University (figure 3). Cycling and walking are almost identical in both of the studies, while car pooling is identified in the 1992 study and not in the 2001 study.

Figure 2: Student modes of travel, 2001



Sample size = 700 or 6.36% student population at the time

Source: Flinders University Green Transport Study Survey, 2002

Figure 3: Student modes of travel, 1992

Sample size = 1,021 or 10% student population at the time

Source: Campus Plan Review, 1992

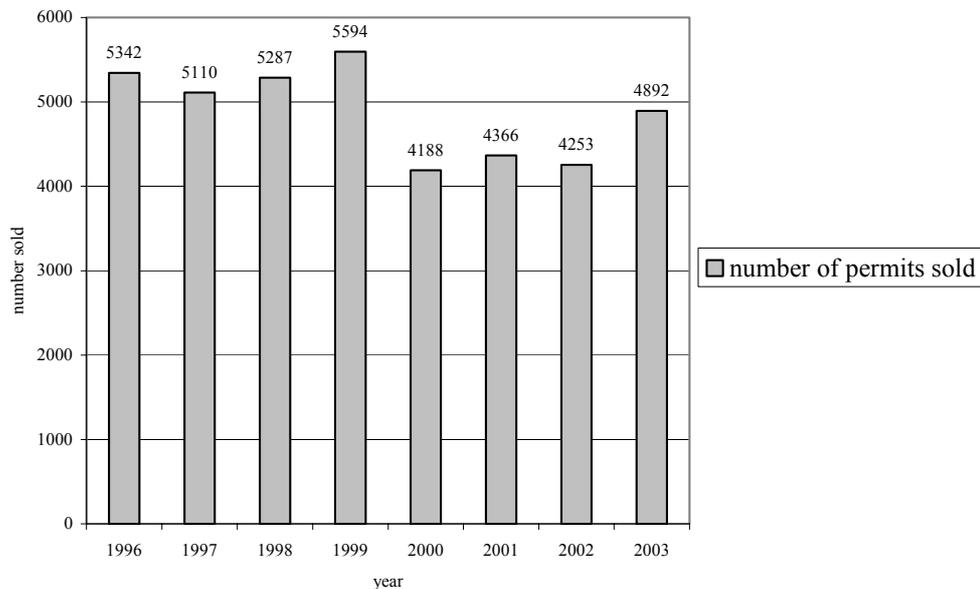
These findings show that the number of people who commute to the University using their car was, proportionally, the same for each period, even though the surveys were conducted 9 years apart. Public transport has increased by 3% in the same 9 year period.

The survey results from 1992 and 2001 are the only two sources of information that are available about student travel patterns in the history of the University. The Green Transport Office recognises that this is inadequate information to represent the true travel patterns of the campus population. From July 2004, there will be a series of transport specific questions in the bi-annual Student Satisfaction Survey (SSS) so that regular data can be collected about travel patterns and student satisfaction with sustainable transport alternatives to and from the campus can be identified.

Car parking demand

When looking at the number of full year general permits sold between 1996-2003, there was a significant drop in 1999 which has risen only slightly to 2003 (figure 4).

Figure 4: Full year general parking permits sold



In May 2004, there were 5,116 full year general permits and 1,192 semester one general permits sold. This is an increase of 224 full year permits purchased from the previous year. It is assumed that two reasons exist for the increase. One, until 2004 car commuters were entitled to a waiver of their first parking fine each year. However, from 2004 only those people who have never been to the campus before and never received a fine are entitled to a waiver. Two, more effort has been put into policing the general parking areas from the university parking inspectors, which has increased the chance of people receiving a fine if they do not display a valid permit.

The increase in full year general parking permits in 2004 may be accounted to the rule change for the waiver coupled with the increased effort from parking inspectors, thus enticing some long term car commuters to the university to begin buying a permit. The drop of full year permits sold from 1999-2003 can also be linked to the waiver and less effort into parking inspectors. Further, this offers an explanation to why the University has consistently battled with car parking demand in the last 5 years, even though the number of general permits sold actually decreased.

Meeting car parking demand

In the history of the University, the response has always been to meet car parking demand through the construction of additional car parks.

Importantly, the University has recently acknowledged that the swell of demand for car parking spaces is predominant in the first four to five weeks of each semester when students are sorting out their time tables. This demand subsides as the semester period draws to a close, with select days during the week being busier than others.

There are currently a total of 4,700 car parking spaces available at the campus, with a break down into general, disabled, metered, special permit, motor cycles, loading, car pool, special

bays, ambulance and university vehicles (table I). By May 2004, there were a total of 7,015 active parking permits (table II). The total of 7,015 does not include the day and metered parking permits which are estimated to be an additional 47,960 permits per year, or roughly 320 per day.

Table I: Breakdown of car parking spaces at Flinders University

	general	metered	Disabled	Special	Car pool	Motor cycles	Uni Cars	Ambulance	Other	Loading
total	4176	199	84	73	33	101	8	3	10	13

Table II: Permits purchased for 2004, up to May

Description	Number sold
General, full year	5,116
General, semester 1	1,192
Disabled/Handicapped	74
Science Park	76
Full year, Hall resident	64
Semester 1, Hall resident	11
Motor Bike, full year	75
Motor Bike, semester 1	16
Car pool, full year	210
Car pool, semester 1	51
Unit resident, full year	59
Unit resident, semester 1	22
Unit resident, semester 2	5
Executive, blue permit	31
TOTAL	7,015

There is no more available land to build new car parks at the University, meaning that second storeys need to be built onto existing car parks if there is to be an increase of available spaces. It costs six times as much to build the second storey of a car park, with the construction of an additional storey on to car park five in 2000, costing \$13,333 per parking space.

Post construction, the direct impact that the University car parks have on the environment is minimal. However, the negative externalities from more people driving to the campus mean that there are increased levels of local air pollution, traffic congestion, with issues such as social isolation and frustration at not being able to find a parking space also being evident.

Alternate measures to address parking demand

The Division of Buildings and Property has committed funding to the wages of a Rideshare Coordinator and the operating costs of a Rideshare (Car pool) scheme since 1992. This has been seen as a minor tool to aid in off-setting the aforementioned parking demand. The scheme is also an act of social responsibility on the part of the University, regarding the need to reduce the number of cars on the road that effect local air quality and traffic congestion.

Since the car pool scheme begun in 1992, the same 3 incentives have always been available for people who decide they want to participate. These are:

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1. Priority parking spaces, currently in carparks 1, 4, 5, 9 and 13
2. A matching service for people who do not have a partner
3. The price of a general permit is to be divided between the two people car pooling.

In the middle of 2002, the Rideshare Coordinator was promoted to the position of the Green Transport Officer. The position was made permanent and allocated 27 hours per week. The title of the Rideshare Coordinator was changed to 'Green Transport Officer' and a position description was created which made the officer accountable for all modes of sustainable transport: cycling; walking; public transport; and car pooling (figure 5).

Figure 5: Graphics that the Office uses for the sustainable transport modes



In 2003, the University opened the Green Transport Office, which is located in the Union Building of the main campus. The Office is open 4 days a week and is the hub for distributing information about Green Transport to the University population and for developing initiatives and strategies to increase the number of people who choose to use sustainable transport to get to University.

Figure 6: Students attending the Green Transport Office



The creation of the Green Transport Officer position and a Green Transport Office is a direct response from the Division of Buildings and Property to the second point of the 2001 Green Travel Study, regarding the implementation of a Travel Demand Management strategy at a University (table III).

Table III: How the University can implement a TDM

1.	Develop a Transport Policy for the University, which has long term strategies aimed at reducing the number of cars coming to campus. This policy would need to have management support.
2.	Create a permanent Transport Coordinator position that has a structured job description and who is dedicated to implementing Travel Demand Management Strategies at the University.
3.	To develop a Sustainable Transport Working Group, that is inclusive of members of the student and staff population at the University, as well as representatives from the road and public transport authorities and local government.
4.	Develop a Bicycle User Group to encourage new cyclists to ride to University 'under the wing' of experienced riders so that they can discover bicycle friendly routes etc.

Source: Rideshare Coordinator, Flinders University and Smogbusters, Conservation Council, 2002, p21

In 2004, the Green Transport Office has met two of the other points identified in the TDM. The Office has held a Transport Action Collective as a medium to liaise directly with staff and students at the campus about transport issues (figure 7). This collective has become more of an advisory group for the office, although members of the group in conjunction with the Green Transport Officer promote events such as Critical Mass, a monthly bike ride in the city, amongst the University population.

Figure 7: Transport Action Collective poster

Further, the collective is contactable and available to provide feedback to the Office as well as help run a free breakfast for cyclists late in semester 2.

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The Office has begun developing a 'progress report' in lieu of a Travel Plan. This is aimed to reflect on how the Office has progressed since the 2001 Green Travel Study and generate a plan for the future about sustainable transport to and from the University. This report will be in the context of improving existing sustainable transport, how such improvements can address parking demand, as well as the environmental and social issues associated with car dependence.

Recently the Division has committed an annual budget for the Green Transport Office to ensure that it can increase the number of people who choose sustainable transport through the following:

- Continuing to develop promotional material about sustainable transport
- Develop semester focussed competitions and incentives
- Employ additional staff so that the analysis of commuter transport patterns is more thorough
- To raise the profile of the Office and its objectives throughout the campus
- Evaluate existing sustainable transport facilities and services to ensure that they meet the needs of users.

Within the next twelve months, the Green Transport Office will be relocated to a more prominent position at the University campus.

Commitment to Environmentally Sustainable Transport

Flinders University is aware of its responsibility as a leading educational institution to find sustainable solutions to local environmental issues associated with car use while at the same time providing equitable choices for its population to use for their journeys to and from campus. To these ends, the University has verbalised its commitment to evaluating how alternative modes such as cycling, walking, car pooling and public transport operate and to encourage more people to use them.

Commitment to three of these modes is evident when looking at point 4.2 of the University environment policy:

- 4.2 Pursue initiatives that enhance the accessibility of the University through public transport, cycling and walking.*

Source: http://www.flinders.edu.au/ppmanual/property/environment_policy.html

Car pooling

Until the beginning of 2003, when a pair of car poolers chose to drive by themselves instead of car pooling, they needed to purchase a day permit. This is because they had to display two permits together or they would risk receiving a fine.

After the Green Transport Officer was appointed, an alteration was made to how the scheme operated. This alteration provided increased flexibility to people who could not carpool on Monday or Friday, by offering them a free parking voucher for these days. This is so that the carpoolers can drive by themselves without having to purchase a day ticket (\$2.20 per ticket).

This voucher needs to be displayed with one of their carpool permits for this entitlement and the car may only be parked in a general parking bay, not a car pool space.

The intention behind this minor change is to promote the ethic that carpooling some of the time helps alleviate parking demand and other problems associated with driving, such as pollution, while minimising the personal cost of paying for an additional permit. This alteration was included in the Travelsmart to Win Promotional Project that was run with the Mitcham City Council's Travelsmart Project Officer (The Green Transport Office, 2003).

Car pooling, Travelsmart

As part of the Travelsmart project, the following incentives were offered to encourage more people to car pool:

- ♦ Free multi-trip ticket for those purchasing a car pool permit (first 200 registrations)
Participants were encouraged to consider catching public transport on the busiest days at the university to reduce the amount of trips made in a vehicle.
- ♦ Car pool matching assistance
The Green Transport Office dedicated an extra 3 hours per week to the car pool matching service for the duration of the promotion, and obtained an accurate wall map of greater metropolitan Adelaide to help with this process.
- ♦ Car pool competition
Car pool participants were rewarded and the profile of the car pool scheme was raised through a monthly draw prize (drawn in March, April, May, and June 2003).

To register for the initiative, participants were required to attend the Green Transport Office to receive their free parking voucher and fill in a form.

Each monthly draw prize included the following:

- ♦ Ultra Tune Car Service (valued at \$170.00, provided by Ultra Tune at a discounted price of \$127.28)
- ♦ Uni Book voucher (valued at \$50.00)
- ♦ Either a Palace/Nova double movie pass (valued at \$8.80), a multi-trip, or a 'Travel Smart' water bottle

Winners were announced in the student newspaper, the *EmpireTimes*.

The contact with car pool permit purchasers increased the profile of the Green Transport Office, and enabled the office to gain statistical data on car poolers. This contact also created a direct opportunity to encourage car poolers to join the Car pool Matching Database to help them personally find a match or to create more car pool matches generally.

The changes to the system were minimal for the University both logistically and financially. Parking Office staff, parking inspectors and the Cashiers Office staff were briefed by the Green Transport Coordinators.

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Recent car pool initiatives

In 2004, the Office began an initiative designed to increase the number of car poolers from an average of 250 per year. This has been a pro-active effort to provide an automatic matching system to increase the number of car poolers.

The Office did this by emailing 4,976 of the people who had purchased a full year or semester 1 general parking permit. The e-mail asked them whether they wished to be included in the Car pool Matching System (CMS). If they did not respond to the e-mail requesting to be 'opted out', their details were included in the CMS. They were then matched with ten other general permit holders who live in their area, whose area they drive through or people who drive through their area. The permit holders needed to attend the office to receive the email addresses of their first ten matches. If they could not make a match, they were sent an additional 10 matches.

Once people attained the email addresses, it was left up to them to determine if their time tables were compatible, to allocate a meeting spot and how often they could car pool. The Office staff provided a 'tips for car poolers' sheet which gave suggestions for sorting out finances in a car pool etc.

The opt out rates from the general permit holders can be seen in table IV.

Table IV: Statistics of staff and student opt out rate, May 2004

Group	Opt out	Still in	Total
Staff	401	496	897
Students	1014	3064	4078

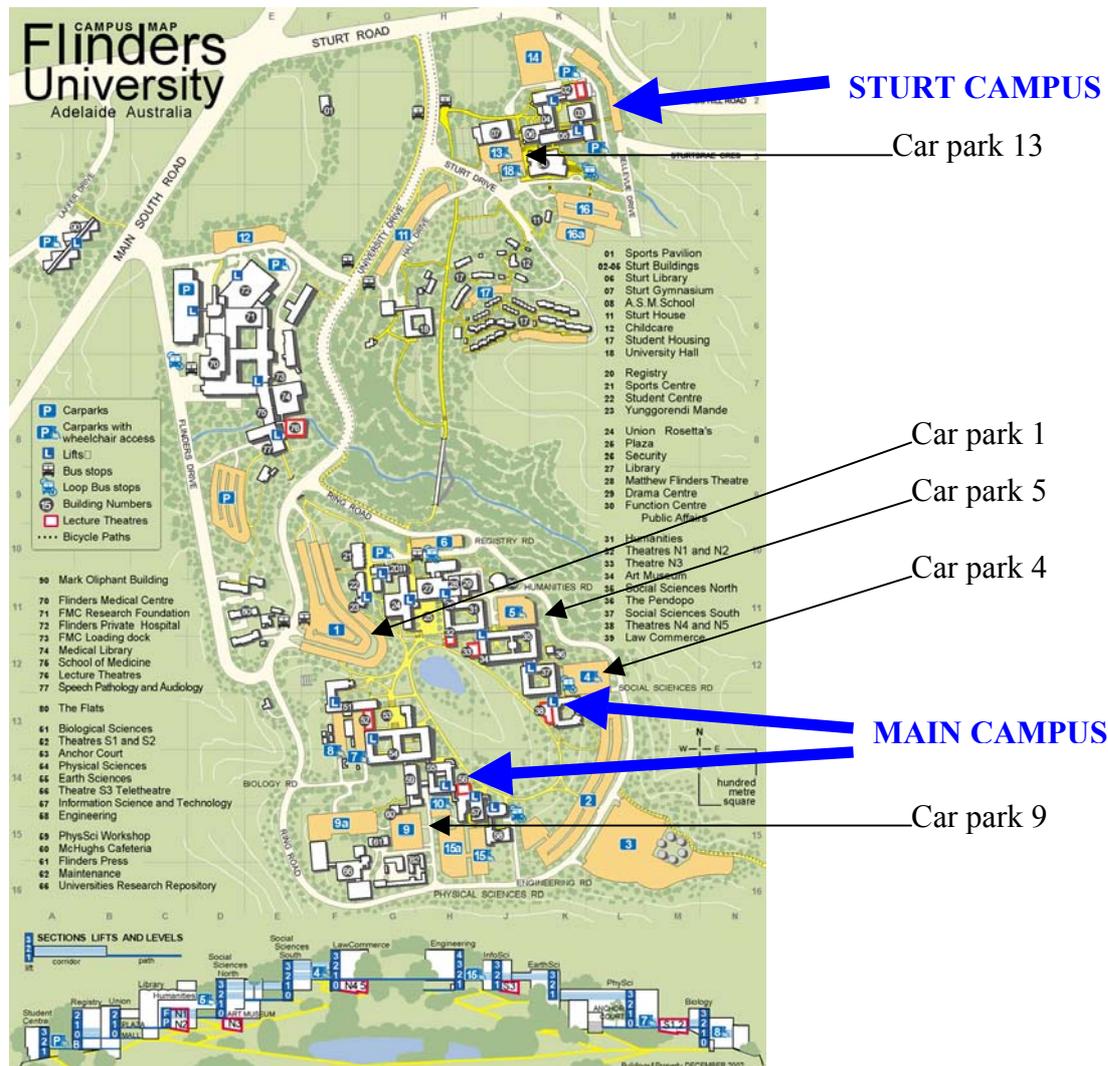
The CMS was implemented after the 3rd week of semester due to issues with the computer program that was designed to match people. Because of this, the application of the CMS would not have assisted to alleviate the pressure during those first few weeks of semester 1.

Since the CMS has been in operation, approximately 20% of the staff and students who were contacted have attended the office to get their matches. This means that these people are likely to be car pooling without any record of doing so. The demand for parking spaces has begun to slow, although it should be noted that this could be attributed to a drop out rate of students and lack of attendance as the semester period progresses as well as more people unofficially car pooling.

Other recent initiatives include 3 additional parking spaces being allocated to car poolers in carpark 9 this year. These additional car spaces bring the total number of car parking bays up to 33. All of the car pool spaces are distributed around the entire campus so that most faculties will have access to some of the spaces (figure 8).

There are 6 questions specific to car pooling in the Student Satisfaction Survey (SSS). The car pooling questions will be used to improve how the scheme operates, is promoted and what would make more people car pool.

Figure 8: Map of Flinders University, showing the location of the car pool car parks



Public Transport, available services

There are 12 bus services that prove a direct service for Flinders University (table V), with an additional 10 services available at the Flinders Medical Centre (table VI).

As tables V and VI indicate, there are no current services from the Adelaide Hills past Blackwood, no services direct to campus from the suburbs south of the University and no services direct to the campus from the suburbs east of the CBD.

Recent Public Transport initiatives

For the first two weeks of Semester 1 (March 1st-12th) and the third week of semester 2 (August 9-13th) 2004, the Office of Public Transport (OPT) and the Flinders University Green Transport Office brought Flinders University students an attractive offer to encourage greater

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use of public transport. A financial incentive was offered to students that enabled them to purchase two multi-trips and receive the third one free (Figure 9).

Table V: Buses that directly service the University

Service	The bus route
199	Once a day, each way from the CBD via Unley road
210	Frequently, all day, from the CBD via Goodwood road
216/216X	Frequently, all day, from the CBD via Goodwood road
218U	Restricted service, from the CBD to Aberfoyle Park via Flinders University
345	Roughly every half hour, from Port Adelaide to Flinders University, via Diagonal road
347X	Every hour, from West Lakes shopping centre to Flinders University, via Marion Shops
680	Roughly every hour, from Flinders University to Sheidow Park via Lonsdale
681	Roughly every hour, from Flinders University to Hallett Cove Beach Railway station
685	Weekends, from Flinders University to Hallett Cove Shopping centre
719	Every half hour until 5.10, from the CBD to Flinders University via South Road
738	Frequently throughout the day, from Blackwood station to Marion shops via Flinders University
739	In-frequently throughout the day, from Blackwood station to Marion shops via Flinders University

Source: Adelaide Metro Loop Bus and buses that connect to the University pamphlet

Table VI: Buses that service Flinders Medical Centre and link with the University Loop Bus

Service	The bus route
218/218F	CBD to Happy valley via Oakridge road
711	CBD to Noarlunga Centre via Main South Road
720	CBD to Marion Shops via South Road
721/721F	CBD to Noarlunga Centre via Main South Road
722/722F	CBD to Noarlunga Centre via States Road
723F	CBD to Colonnades Shopping Centre via Sturt Road
727	City to Chandlers Hill via Chandlers Hill Road
733M	Marion Shopping Centre to Colonnades Shopping Centre via Sturt Road
MA1	Marion Access 1 (clockwise) loop service via Bradley Grove and Goodwood Road
MA2	Marion Access 2 (anti-clockwise) loop service via Goodwood Road and Bradley Grove

Source: Adelaide Metro Loop Bus and buses that connect to the University pamphlet

Through a cooperative relationship, the OPT and the Green Transport Office, worked together to coordinate, promote and manage the promotions. In both instances, the promotion produced an increase in Multi-trip sales and a significant increase in the level of contact between students and the Green Transport Office.

The offer required full time students to attend the Green Transport Office and present their student card to receive a coupon. This coupon was then presented at the Post Office on campus when the students purchased their Multi-trips. The students were able to receive one coupon per week, which amounted to a total of two coupons per student in March and one coupon in August.

Results from the March promotion showed a much higher number of students than expected picking up a coupon from the Green Transport Office with just over seven hundred students

Figure 9: Adelaide metro and Green Transport Office promotional flier for the 3 for 2 Offer, March 2004



(706) attending. During the second week, over one thousand students (1,107) attended the Office for a coupon. With a population of fourteen thousand students, the second week of the promotion managed to catch the attention of almost ten per cent of the student population (7.9%). In August, it is estimated that over 1,200 students collected a coupon, although figures have not yet been finalised.

An Adelaide Metro InfoTeam member was present in the Library to assist students with all their public transport queries during the both periods when the offer was available.

Eleven specially created bus stops have been installed around the Flinders University campus showing the timetable and route map of the free Flinders University Loop Bus service. This has happened to raise awareness amongst the students and staff of Flinders University that this free Loop Bus service is available and that it connects with numerous Adelaide Metro public transport services at various locations around the Flinders University Campus, as well as at Flinders Medical Centre. Fliers were also created by the OPT with the Green Transport Office distributing them campus wide so that better bus connections can be made with the free Loop Service.

Greater potential exists to increase the number of people who catch public transport to the University, however, time and again it has been identified that inadequate services from several suburbs in the metropolitan areas where students and staff reside limit this increase in patronage. This is evident when in the 2001 survey students were asked ‘ What factors would encourage you to use public transport’ and the two major responses were, more frequent services and more direct services (Rideshare Coordinator et al, 2002). Further, 57.6% of

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students said that they would use public transport more than once a week if appropriate changes were made (Rideshare Coordinator et al 2002).

In response to this, direct liaison with the OPT has occurred with specific emphasis placed on collecting data about public transport needs and use. Five public transport questions have been included in the SSS and the results will be forwarded to the Office for Public Transport.

Figure 8: Loop Bus stops showing timetable and route map



It is expected that the answers to these questions will identify latent demand in specific areas and that the Office for Public Transport will amend these services accordingly.

Additionally, the Green Transport Office has begun to collect data about who is catching the bus to and from University during a regular week of each semester. This happened for the first time from the 16th to the 20th of August. Students were employed by the Green Transport Office to stand at the bus stops around the campus between 8:30am and 5:30pm and count people who get off and each service. The aim of this initiative is to provide the OPT with accurate information about how many students and staff catch the 12 services throughout the day during a usual university week. Hopefully, this data will be able to assist the OPT to make sure the right services are coming to campus at the right time and that enough people are using them.

Cycling to campus

There are designated bike paths leading to the campus from Belleview Heights, Marion road, the Southern Expressway and Shepherds Hill Road. These bike paths are invaluable for the people who do use their bikes to get to campus.

Recent cycling initiatives

In 2003, the Green Transport Office promoted and encouraged staff and students to enter the '*Life. Be in it, Ride to Win*' promotion. Alongside this promotion, Flinders University held a separate cycling competition as part of the Travel Smart to Uni Project (the Green Transport Officers, 2003).

The two Green Transport Officers promoted and coordinated the '*Ride to Win*' competition from Flinders University. Registrants for the '*Ride to Win*' competition were automatically entered onto the separate Flinders University Cycling Competition database.

When participants registered for the *Ride to Win* competition they were given a '*Life. Be in it*' booklet to record how often they cycled to University. To be in the running for the prizes, cyclists were required to return a slip from their booklet to the Green Transport Office. The Green Transport Coordinators then entered the participants in both competitions and drew prizes monthly (drawn in March, April, May and June).

The Flinders University prize list included:

- ♦ JT Cycles maintenance voucher (valued at \$70.00)
- ♦ Uni Book voucher (valued at \$50.00)
- ♦ ***Travel Smart Drink bottle***

A bicycle pump and puncture kits were purchased and made available at the Green Transport Office as part of the initiative. The puncture kits were made available for sale from the office at a cost of \$2.50 each.

The prizes promoted the benefits of bicycles in good working order, through the cycle maintenance voucher and good health when cycling via offering drink bottles as prizes.

Walking

The University provides designated walking paths around the campus that are well lit and offer good access to facilities. The Green Transport Office has walking maps available at the Office for people to access who would like to walk through one of the recreation parks close to the campus.

University commitment to Environmentally Sustainable Transport

The Division and indeed the University has progressed its dedication to issues of environmental sustainability within the transport sector. At the same time, however, it has remained committed to the decision to keep the price of parking permits relatively low, with only minor increases to the price over the last decade. In reality, although this provides equity for those low income students who have cars to commute to campus and the University's staff, this issue clearly interferes with the objective to reduce the number of cars coming to campus and reducing the local environmental implications associated with them. In addition to this point, the financial incentive of a car pooling permit is not an attractive option compared to a general permit. This is because they are half the price of a general permit for either full year or semester, however, two of these permits are required, so the cost of a pair of car pool permits is the same as a general permit (Table VII). This provides little financial

incentive for people to car pool, specifically if these people are unofficially car pooling by using a general permit.

Table VII: Permit prices at Flinders University, 2004

	General Permit	Halls Resident's Permit	Units Resident's Permit	Rideshare Permit	Motorcycle Permit
Semester 1	\$41.80	\$41.80	\$41.80	\$20.80	\$13.20
Semester 2	\$41.80	\$41.80	\$41.80	\$20.80	\$13.20
Full year	\$77.00	\$77.00	\$77.00	\$38.50	\$22

The reality of sustainable transport use at Flinders University

The Green Transport Office and the Division of Buildings and Property identify that public transport and carpooling offer the greatest potential for alleviating the number of cars coming to its campus. However, they acknowledge that there is a limit to how well these modes can do this as they currently operate.

The initiatives that have been developed and implemented since the Green Transport Office was created have not significantly reduced the number of cars commuting to campus. Physical pressure that the parking system was under during the first four weeks of semester 1 and 2 in 2004 was evident and, in retrospect has been identified as being higher than previous years.

Because of the dramatic pressure placed on car parking spaces, the Division has begun to consider building another car park to meet the demand. Fortunately, the decision to build an additional car park has been postponed, as the parking fund does not have sufficient funds to cover construction costs at this stage.

The University is ambitious to reduce the number of cars coming to the campus now and in the future. This situation lays open the opportunity to reform the car pool system so that the number of people car pooling increases from approximately 250 to 450. It is estimated that if this increase occurs, there will be a reduction of 100 cars commuting to campus on peak days, which will alleviate the need for any new carparks to be built in the next two years. Alternatively, a similar number of car drivers would need to leave their cars at home and catch public transport, cycle or walk.

Reforming the car pool system at Flinders University has not occurred as yet, however, the progress report will contain several suggestions of how the scheme can be changed so that it attracts the numbers of people required to make an impact on parking demand.

The University and the Green Transport Office has a restricted influence on how the public transport system operates. However, we have been informed that data must be provided to identify that latent demand for a service exists. Hence, the Office is collecting data so to help the OPT confidently put services on where the students and staff of the University need them.

As figures 2 and 3 indicate, only a small proportion of the population actively walk or cycle to University. Reasons for this include the topography of the University and its geographic

placement in Adelaide, with the majority of people attending the University living in suburbs farther than 10 kilometres away (Rideshare Coordinator et al, 2001). These factors are ones that the University cannot directly alter, with the exception of promoting people to live closer to the campus and of creating programs that specifically target making it easy for people to cycle.

Promoting Loop bus connections where people can ride or walk to so they can then be ferried up the hill is one approach that the Office uses for encouraging people to ride. Another is to help increase the confidence that people have for riding to campus through mechanisms such as a Bicycle User Group and a more specific information about cycling and walking on the Sustainable Transport map.

Future Initiatives of the Green Transport Office

Car pooling

The Green Transport Office has developed an online registration form, which is an automatic process for car poolers to use to find themselves car pool matches. This initiative will begin in 2005 and it is intended to increase the flexibility for the population to find car pool matches at any time that they require.

The car pool officer at Latrobe University's Bundoora campus in Victoria, recommended that the Office have a table set up at new student enrolments to promote the car pool matching system. Latrobe did this and increased the number of people on their database from 200 to 3,000. During the 2005 student enrolments the Green Transport Office will have a table where new students can register to be put on the car pool matching data base. It is expected that a similar success will occur for an increase on the Flinders University car pool register, which should substantially increase the people who are matched.

Also, in semester two 2004, 10 lucky general permit holders will have the opportunity to win free car pool parking for 2005. All they have to do is transfer their 2004 general permit to a car pool permit before the end of the first term.

Public transport

The Green Transport Office will be analysing the details collected during the head count and will present the findings to the OPT. The Office will continue to work with the OPT for the remainder of this year to ensure that the data collected from the head count are suitable for the purposes of the OPT. The Green Transport Office will continue to advocate on behalf of staff and students needs for catching public transport.

After the report from the latest 'three for the price of two' multi-trip deal have been finalised, negotiations are expected to take place to plan a promotion for next year.

Cycling and walking

The Green Transport Office loves bikes and has invented a competition for the second term of semester two during 2004 that is aimed to get people to cycle to the campus. The competition involves cyclists proving to the Green Transport Office (GTO) that they have ridden to University – rain, hail or shine.

They need to do this by:

- Bringing in their helmet to the GTO
- Riding their bike past the GT Officer at a designated point at a certain time
- Attend the office in their riding attire (gloves, clip in's, cycle pants, helmet etc)
- Convince the GTO staff that they have ridden through some other means.....

When they do this they can enter the competition draw by:

- providing their name,
- contact details
- student/staff card.

Because the Office would like people to cycle more than once, if they ride their bike and enter once a week for the three weeks leading up to and the day of the prize draw, it will be noted on the Office database and placed into a separate pool making them eligible for a **MEGA** prize.

The prizes will be drawn on Wednesday the 27th of October during the 3rd week of term 2 of semester 2.

On this day, there will be a free breakfast from 8.40am – 10.40 am put on by the Green Transport Office and members from the Transport Advisory Collective. The breakfast will be the last chance for cyclist to enter the competition before it is drawn during that afternoon.

All Green Transport

A transport specific map is currently being developed which will clearly show the following:

- All bike paths, racks and lockable bike stores,
- All car pool car parking spaces,
- Loop bus access,
- OPT bus stops and which services exist there,
- Locker and shower facility,
- The location of the Green Transport Office,
- Where bike paths lead into the campus grounds from the surrounding environment.

Currently, there is no one map that clearly identifies where all of these facilities are.

The development of a progress report for the University will be one of the main focus's of the Green Transport Officer during the latter part of 2004.

The inclusion of 13 transport specific questions in the Student Satisfaction Survey from July 2004 will provide a better understanding of student travel patterns, which will help tailor the sustainable transport initiatives in the future. This survey will be distributed to all enrolled

students and has a response rate of approximately 20%, which will provide an adequate sample size for the Green Transport Office, the Division of Buildings and Property and OPT to evaluate and respond to.

Another initiative includes a change in the message of all promotional material so that it is clear what the University offers for car poolers and how people can car pool, use public transport, cycle and/or walk. These messages will be conveyed in the student diary, on posters around the campus, in the library displays at the beginning of each semester from 2005, during enrolments and information week on campus.

Conclusion

The Division of Buildings and Property is responsible for providing transport options and transport facilities for the University population to use to commute to campus that ensure that they can access the University facilities easily and efficiently. The Division is in principle, committed to providing transport options that are energy efficient and sustainable which benefit the University, its population and the local environment.

Significant funding and effort have been contributed from the Division and external bodies, namely Mitcham City Council Travelsmart program and the Office for Public Transport, to run initiatives aimed at increasing the number of people who use car pooling, cycling and public transport to commute to campus.

The number of cars coming to campus is too high for car parking spaces to cope during the first four weeks of semester. The car parking demand has increased during this year, 2004, while the sustainable transport options, as they currently exist, are not attracting significantly more numbers than they have in previous years. The Division has considered building additional car parks to meet this demand and has chosen to delay this situation, while making minor changes to how sustainable transport operates currently.

Serious disincentives associated with driving to campus, such as a dramatic hike in the \$77 a year general permits, in conjunction with major incentives for carpooling, such as significantly discounted parking, better car pool matches and faculty specific car pool matching are some of the options that the University can use to reduce the number of cars coming to campus.

Improved public transport services as a response to the identification of latent demand, is another mechanism that the university can use in partnership with the Office for Public Transport to reduce the number of people who drive to campus.

It seems that there is no short solution to reduce the cars coming to campus, other than encouraging all students and staff who drive to the University to make a serious effort to take other modes of transport and forsake the convenience of driving. This is easier said than done, however the future of the Green Transport Office looks optimistic, with support from the University to reduce the number of cars coming to the campus.

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