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Tilley Award 2005

Application form

The following form must be competed in full. Failure to do so will result in disqualification from the competition.

Please send competed application forms to Tricia Perkins at patricia.perkins@homeoffice.gsi.gov.uk

All entries must be received by noon on the 29 April 2005. Entries received after that date will not be accepted under any circumstances. Any queries on the application process should be directed to Tricia Perkins on 0207 035 0262.

1. Details of application

Title of the project **BIKESAFE 03>**

Name of force/agency/CDRP: Roads Policing Unit, Hampshire Constabulary

Name of one contact person with position/rank (this should be one of the authors): **PC 1196 GEAR**

Email address: michael.gear@hampshire.pnn.police.uk

Full postal address:
Bikesafe Co ordinator
Totton Police Station
Testwood Lane
Totton
Southampton
SO40 3ZE

Telephone number: **023 80745363**

Fax number **023 80745368**

Name of endorsing senior representatives(s) **ACC SIMON COLE**

Position and rank of endorsing senior representatives(s) **ASSISTANT CHIEF CONSTABLE TERRITORIAL OPERATIONS**

Full address of endorsing senior representatives(s)
HAMPSHIRE CONSTABULARY,
POLICE HEADQUARTERS,
WEST HILL,
WINCHESTER,
HAMPSHIRE,
SO22 5DB

2. Summary of application

In no more that 400 words please use this space to describe your project. Include details of the problem that was addressed a description of the initiative, the main intervention principles and what they were designed to achieve, the main outcomes of project particularly in relation to the problem, evidence was used in designing the programme and how the project is evaluated.

Project Objective

Bikesafe 03> was initiated within Hampshire & the Isle of Wight with a clear aim:

- To reduce the increasing number of motorcyclists [referred to as Powered Two Wheelers [PTW] killed and seriously injured [KSI] on the counties roads.

Scanning: A variety of comprehensive data was collected from police, health, highways, riders, media etc in order to fully understand the problem. Traditional enforcement methods predominantly police led did not appear to impact upon the problem. Bikesafe was initially implemented in 2000 however fatal and serious accidents of riders of PTW were continuing to rise year on year.

- 2001 = 16
- 2002 = 22
- 2003 = 33.

Analysis: The PTW community is continuing to grow, partly fuelled by the increased popularity in both recreational and commuter use. Analysis of rider profiles involved in fatal collisions in 2003 shows,

- Large numbers of collisions involving larger sized bikes.
- Motorcyclists generally make up 1% of road traffic, but suffering 18% of deaths and serious injuries.
- Ages of riders vary each year.
- Injuries vary from a fractured thumb to a severed lower leg.
- The age ranges from 16-60 the highest number of injured are 16-20 the second highest 36-40.
- The highest number of serious injury collisions has occurred in 30mph speed limit areas.
- There were three main motorcycle casualty routes that accounted for the highest proportion of accidents

Responses: An innovative partnership approach combined enforcement, safety engineering, education and explanation. Responses from key partners was directly supported and part funded by the Strategic Casualty Reduction Partnership they included,

- Local and motorbike press awareness and media messages.
- Partnership road shows at key locations and events
- Enhanced police patrol and focussed enforcement
- Extensive safety engineering work on the 3 main routes
- A briefing sheet designed specifically for the PTW community.
- The EDGE44 joint police and council rider assessment scheme.
- Proactive police website

Assessment: Regular partnership team meetings delivered clear strategic intent and operational reality; to properly progress and jointly evaluate the overall project plan.

- Year one, fatal collisions involving PTW's reduced by 70% (23) compared to some of our surrounding forces, many have increased.
- £24 million saved.
- Driver Improvement Scheme under used (new response being implemented)
- More riders using EDGE 44 scheme = more aware and improved riders
- Co-ordination is essential to success

3. Description of project

Project objectives

- The overall objective was to reduce the number of killed and serious injury PTW collisions in Hampshire and the Isle of Wight by a minimum of 15% year on year.
- To minimise community costs and public concern in terms of the loss of life and the associated burden upon already stretched resources, including the financial and opportunity costs to the emergency services, as well as to the health authorities and hospitals.
- To develop a clear project lead and development of a partnership approach to reducing the number of PTW collisions and injuries.

Defining the problem

A study of nearly 3 years of collision data involving all PTW's in Hampshire and the Isle of Wight was undertaken. This report called BikeSafe 03> highlighted the specific problems and formed the basis of a PRIME [Problem Resolution In a Multi Agency Environment] project. In 2003, there were 33 fatal collisions involving PTW's.

- The national figures in 2003 reported that 695 people had died and a further 6957 received serious injuries as a result of PTW collisions.
- The data set used for the purpose of analysis for this project was gathered primarily from Police collision data but analysed by both the Police and HCC.
- Also highlighted in the analysis stage were errors in the initial recording of the severity of injury and in some circumstances the location. Every collision report was checked and data accuracy verified.
- The analysis also helped identify the age of rider, time and day of collisions and locations with a higher risk attached. Rider profiles for 2003 showed that there were a large number of collisions involving larger sized PTW's [1300cc plus]. The age of riders varied year on year and although nationally there were suggestions that the riders more likely to crash are those coming back to biking it required further work locally to better identify the type of rider or size of motorcycle more likely to be involved in a collision within the two counties.
- National research suggested that sports bikes make up the greater part of PTW sales throughout the country and are more popular than other models being used for commuting or pleasure use, therefore, these types and size of machine could be more likely to be the type of PTW involved in a collision.
- Gap analysis identified that there was no clear strategy for dealing with the increasing problem, there were no clear lines of communication between and with key partners, and whilst good work was ongoing much was being done operating in silos.
- Police resourcing, direction and response was not cohesive and lacked clarity of purpose.
- A structured meeting framework involving all key partners was required to better deliver the joined up approach at both a strategic and tactical level, once the strategy had been agreed. Key partner agencies needed to include the HCC Road Safety & Engineering Team, Hampshire Ambulance Service, Hampshire Fire and Rescue Service, Unitary Authorities, the Police and the Motorcycle industry.
- A more detailed understanding of the national and regional perspective in tackling this problem was also required.
- A financial cost to incidents also needed to be determined.
- A preferred model for Problem Solving needed to be properly applied to assist in shaping the overall plan and drive the agenda forward and so the PRIME approach was utilised.

Scanning

- **Victim**

Background work identified that the two counties have one of the highest number of registered PTW's in the Country.

In 2000, there were 860,600 motor vehicles registered of which 35,800 were PTW's. Therefore, PTW's represented 4% of all motor vehicles and yet this group represented 21% of all KSI's on our roads.

Information supplied by the Motor Cycle Industries Association [MCIA] suggests that other counties have a 2% ratio of registered PTW's. It follows therefore, that the road risks to users of PTW's in Hampshire & the Isle of Wight is far higher.

In 2002, a total of 6824 road traffic collisions involving personal injury were reported to Hampshire Constabulary resulting in a total of 9016 casualties. This is represented as follows:-

- 95 Fatalities [22 PTW's]
- 1212 Serious [257 PTW's]
- 7709 Slight [798 PTW's]

This shows that users of PTW's made up 24% of all fatal casualties and 21% of all seriously injured casualties.

It was also a 53% increase on 2001 and a 12% increase in those seriously injured and a 1% increase in slight injuries sustained.

In 2003, there were 108 fatalities as a result of road traffic collisions, 33 involved PTW's which was an increase of 50% over the 2002 figures. PTW's represented 31% of all fatal traffic collisions recorded that year.

This escalating problem was cause for concern for all partner agencies and understandably so for the family and friends of those who died or suffered injury, as well as for the wider community.

Victims in the main were the riders of PTW's. In addition, it is recognized that the level of incidence and the extent of injury and trauma suffered also has a knock on effect upon witnesses, other road users and the emergency services personnel who may have witnessed the collision, been involved in it or rendered aid and support to the injured person.

Organisationally, the emergency services can be affected in that time spent dealing with the scene, the resources and the follow up, can mean that those resources may not be available to respond and deal promptly with other incidents; thus other users of the service may be affected. In addition, there is the extensive demand and burden that falls upon the hospitals and health authorities in trauma care and treatment A serious injury collision can cost the NHS tens of thousands of pounds, figures quoted are in the region of £100K, with a breakdown of in-patient care, theatre procedures, treatment and other resources costing £76K, Intensive Care Unit £16K and then after care at outpatients making up the remainder.

A single Fire and Rescue Tender attending a scene would cost £236 per hour. A Hampshire Ambulance costs £165 to attend the scene of a collision.

In the region of 10-12 Police officers may deal with the scene and immediate road closures with an average £19hourly rate.. An average fatal investigation can costs the police in the region of 400 – 2000 hours police hours dependent on type, scale and complexity.

The cost of repairs to roadside furniture or vehicles involved in the collisions is borne out by Insurance companies. UK Motor Claims experience shows that in the year 2000 there were 27000 claims involving PTW's at a cost of £72m with an average cost of each claim £2623. In 2001 in the region of 33000 claims with a payout totaling £71m. In this sense the victims can be seen as the general road users who pay higher premiums.

- **Offenders**

In 2002, the rider more at risk from injury was the sports bike rider, male and in his mid thirties. A review of serious injury data from Southampton General Hospital indicates that the injuries occur to riders aged between 14 and 40 years. Further analysis reveals that those aged between14-19 are riding scooters or mopeds. In the first quarter of 2003 the age of those who died ranged from 18 to 58 years with larger PTW's being involved.

The evidence from police activity reveals a majority of riders being stopped and identified as committing traffic offences are those who ride the sports type high PTW. This has to be combined and considered with what we know about the increased use and sales in these machines, together with our knowledge of the world of motorcycle racing which has a competitive edge and a cult following. The rider tends to be male; the age range tends to be mid thirties to mid forties and known as the 'born again biker'. We also need to factor in those who seek the 'thrill' factor and have a propensity to want to take risks.

*****Research has been conducted by Dr Geoff CROWTHER of the University of Huddersfield into the mindset of riders and some of the points covered include;-

- Speed fantasy – wants adrenaline rush and emulates motorcycle racing heroes.
- Freedom fantasy – adventure-independence-control-thrill rivalry-escapism.
- Risk taking – in middle age serves need for mastery and expression of individuality.
- Mastery needs – frequently met by experimentation involving taking risks and testing limits.
- Low regard for road safety – thrill factor playing "cat and mouse" with Police.

While the information gathered shows that 17 riders lost their lives through a loss of control while cornering other road users need to be aware of motorcycles as they emerge from junctions or turn into junctions as these type of collisions are still high.

A typical police response had been prosecution, this approach was inconsistent and dependant upon individual officer decision making. Very little engagement was taking place to gather useful intelligence about riders, their level of skill and training. Policing was in effect purely reactive focused upon dealing with the effect of the riders' actions and or behaviour as opposed to working to identify and tackle the causes.

- **Location**

Bikesafe 03> identified three key routes of concern where riders had been significantly more at risk. They had become regarded as a 'rider challenge' being widely reported on biker websites and motorcycle magazines. In addition, group riding and peer discussions at bike meeting places across the country also helped to advertise the routes and fuel rider interest in them.

The routes identified were all A class roads as follows:-

- The A339, a national speed limit road of approximately 10 miles in length, rural twisty and challenging at greater speeds which had a route from Alton to Basingstoke.
- The A272, mainly national speed limits with twisty rural sections and then entering small villages between Winchester and Petersfield.
- The A32, mainly national speed limits running from Fareham to Alton. On this route there was a natural meeting place at a local café where riders would congregate and ride out from on a regular basis and always on a Sunday morning.

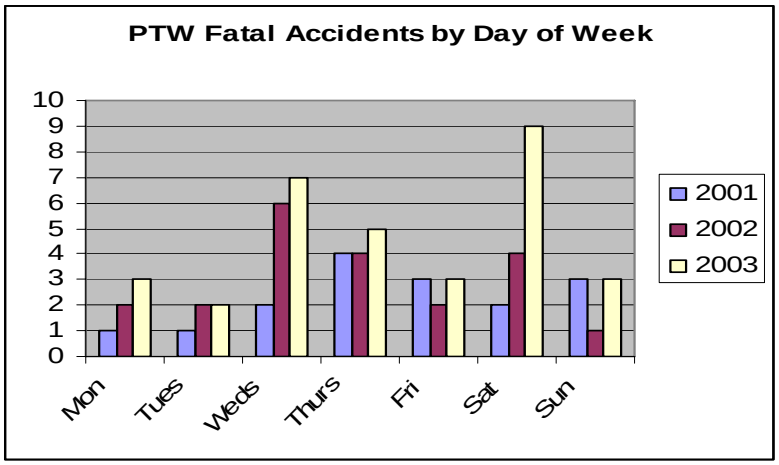
The three routes were quite central in the county and had become somewhat of a magnet for riders of high PTW's from across Hampshire and surrounding counties, there were a growing number of complaints regarding noise as the routes became more popular.

In some areas along the routes during the operation there were speeds of 110 – 115 mph detected in rural national speed limit areas, a number of offences of failing to comply with traffic signs, double white line systems were recorded, unchecked these may have gone on to be collisions in the near future.

When are the collisions taking place?

In 2000 – 2002, PTW fatal collisions would begin to occur in February and continue through to November. However in 2003, the first reported fatal collision was reported in January and this was followed by more death and injury. The times vary according to seasonal changes but as can be seen by the following charts two periods stood out.
Wednesdays and weekends were the most likely times for collisions involving PTW's to occur. The incidents on a Wednesday coincided with an established bike meet that took place within close proximity to these key routes and which riders frequented from across the county and elsewhere.

The following chart reflect how annual change prevents a more targeted approach to identify which days are at a greater risk of when collisions are likely to occur.



Analysis

Who are the victims/riders involved?

The riders most at risk are in their mid thirties and those 16-19. Fatalities occur mainly in the older age bracket and are predominantly male riders, aka in the popular press as 'born again bikers'. Whilst there is some reticence amongst riders to accept this label, it does identify those riders who passed their motorcycle test earlier in life followed by a period away from riding [5 - 10 years] and thereafter return to riding again. They had no further training or rider assessment and the timeframe away from riding combined with the advanced technology, power and performance of the machinery, as well as the increased traffic volumes, plus, the significantly reduced rider capability and experience make the risks to the rider and road user far greater. The physical fitness of the rider in terms of the ageing process will have also had an effect on their reaction times, their balance, eyesight and brain to body coordination and these must also be added to the equation.

Performance from a mid range 600cc PTW can mean speeds in excess of 150 mph with the larger machines capable of excess 175 mph. The 16-19 year old's injuries tended to be within the serious and slight category, due in large to the fact that they are riding smaller PTW's [Mopeds and Scooters] which are restricted to much lower speeds and are also used more frequently in urban areas where traffic conditions are such that lower speeds are general all round. Therefore, the impact speeds are less and the resulting injuries in the main less severe.

What Is The Impact of KSI Collisions Involving PTW's ?

There is a significant impact upon the community which manifests itself in a variety of different ways. These include road closures, congestion, delays and diversions for other road users, local households and businesses affected

within close proximity, through to the allocation of extensive emergency services assets and use of hospital and health authority resources.

Of course the most significant impact is upon those who were injured or died, their families, friends and employers in both human costs and staff well-being.

In purely financial terms great expense is calculated to communities as can be seen below:-

The Department for Transport recognise the cost of dealing with collisions [total to community, not just police resources] Source HMIC Thematic Inspection Report 1998 as follows:

	Motorway	Built-up Roads	Non Built-up Roads
Fatal collision cost	£1,191,210	£977,510	£1,081,660
Serious collision cost	£143,690	£117,420	£138,090
Slight collision cost	£16,740	£11,690	£14,190

Using the above calculations for the Hampshire & the Isle of Wight, the overall costs to the community can be expressed in monetary terms as follows:-

	2001	2002	2003
Fatal	£15 million	£22 million	£32.5 million
Serious	£28.5 million	£31.6 million	£29.4 million
Slight	£9.8 million	£9.9 million	£10 million

Serious Injury Collisions

Serious injuries received vary from a fractured thumb to a severed lower leg. The age range for this classification of crash injury is 16-60 years with the highest number of injured typically in the 16-20 year old age bracket and the second highest in the 36-40 ages. The majority of serious injury collisions occurred in urban and city areas which have 30mph speed limits. Again, many of the collisions were avoidable if there had been improved road safety awareness based on rider education.

Response to the Problem

- Operation Ardvasar was developed as a partnership approach to solving the problem. It commenced on the 17th April and concluded at the end of September 2004, the biking season. Hampshire Constabulary provided high visibility patrols as part of the education and enforcement package at key times with a a road safety awareness stand set up at the West Meon Hut, Little Chef Café at the junction of the A32 and A272 once each month on a Sunday, a renowned meeting place for bikers. This provided a good platform to engage with bikers and get the Bikesafe message across in a non confrontational environment.

- The Safety Camera Partnership working closely with the police and targeted the routes at key times and also helped with publicity.

- The partnership developed included, Hampshire Constabulary [lead partner] the Hampshire County Council [HCC] Road Safety Team, HCC Safety Engineering Team, Hampshire Ambulance Service, Safety Camera Partnership, Partnership Media teams and the BASICS [Doctor] team.

- Hampshire Ambulance Service provided motorcycle Paramedics who patrolled these three routes each Weekend. Should a collision occur then First Aid would be more readily available and the timely response in such cases can make a real difference to the saving of a life or to prevent the injuries from becoming more severe.

- A partnership communication strategy was developed and implemented which included making effective use

of the following mediums local Newspapers, Television, Radio Stations and Websites [www.bikesafe.co.uk and www.hants.gov.uk/roadsafety]. It focussed briefly on the past and the ongoing work gage riders and local community's interest. It also helped to make clear the Partnerships intentions at all levels.

- In previous years an enforcement bias led policy operated. This tended to alienate those riders more at risk and they had become what could be termed 'a hard to reach' group. This core group was identified as requiring investment in further training and the traditional approach had not helped change attitudes or alters rider behaviour. Therefore, a more pragmatic policy was adopted with 'safety' its key driver in tackling infringements in the law with every interaction with a rider an opportunity to encourage further assessment and training.

- Ongoing analysis of the collision data showed that since the start of the intervention on the three routes there had been no fatal PTW collisions and in fact there were no fatal PTW collisions within the two counties between 17th July and 10th December 04. Encouragingly too, there had been only four recorded serious injury PTW collisions on these routes as against twelve the previous period.

- The Edge 44 rider awareness scheme operated between HCC road safety team and the Police focussed upon raising sports bike riding standards, this included sponsorship and incentives which included cheaper insurance and biker clothing. This scheme was promoted at key bike events throughout the year and via radio and poster advertisements. It was further supported by 'biker insight' a publication aimed at the target audience which included key safety messages, updates on progress and encouraging rider assessment and training.

- A rider workshop was delivered to raise the standard of biker first aid developed jointly between the Police and the BASICS team.

- In engineering terms, HCC installed 'gateway' signs to each of the targeted routes and undertook an audit of the key routes in terms of their safety to riders. Other measures included road treatments and limited use of interactive signage. All completed in consultation and as a result of the partnership meetings ongoing.

- The first period of 2004 has seen many new methods of casualty reduction measures being implemented, the post of Bikesafe coordinator, Operation Ardvasar to patrol the three main motorcycle casualty routes. Hampshire County Council has carried out a lot of engineering work on the A339 Alton-Basingstoke section. There has been a greater awareness in Safer Roads Campaigns.

- A successful funding bid to assist with publicity and help police the routes over a six month period during the summer months helped to ensure that police activity on these routes was maintained. These activities were overseen by the police who have provided a full-time Bikesafe Co-ordinator.

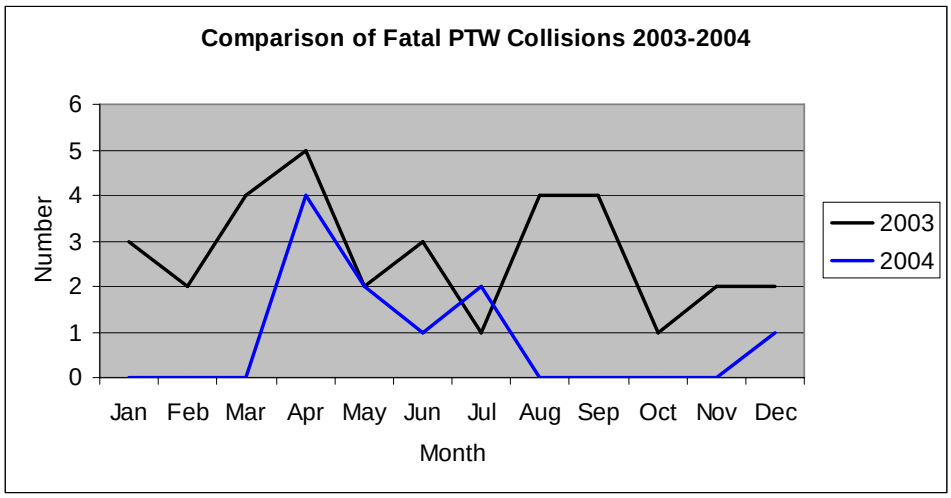
- The early identification of the right partners and resources to turn strategic intent into operational reality has been key to the success of this Project. Clearly defined goals and effective and ongoing communication between them has helped deliver the outcomes. Some pushing of traditional boundaries and innovative working by a dedicated team with a shared vision has also helped make the difference.

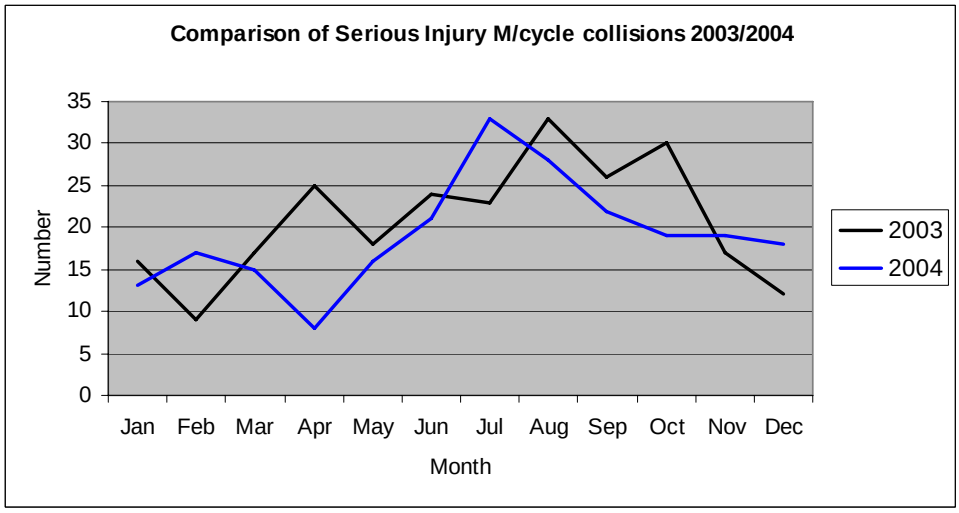
- Develop and fully utilise the police website www.hampshire.police.uk > Force organisation>specialist teams>Roads policing unit

Assessment & Learning

- Ongoing data collection processes taking place overseen by the Bikesafe Coordinator to assess the need for further intervention or appropriate press release details.

- A quarterly casualty reduction partnership meeting takes place to inform all stakeholders of the current situation and to further evaluate progress made and future plans. These meetings are at strategic and operational level.





- A review of operational effectiveness covering a 12 month timeframe has been undertaken. Very positive results and feedback from a wide variety of sources have been received which include the following:-
- A 70% reduction in the number of people killed where a PTW was involved.
- A 10% reduction in the number of people seriously injured where a PTW was involved.
- 23 less people died in 2004.
- In monetary terms this represents a £24 million saving in community costs.
- Financial support and investment from across agencies has helped to pump prime year one. Year two has successfully secured some funding to help continue the work. In the main, it is recognised as mainstream business and staff time is absorbed by the various represented groups. However, opportunities for funding streams will continue to be explored as part of the overall plan to keep progress and publicity on track.
- Ongoing review and analysis has identified a further route to be included in the 2005 Plan. This same

tactical application is easily transferable to this route [A3057 from Romsey to Andover] and is already underway.

- A targeted approach utilising the National Intelligence Model [NIM] as its principal policing tool helped to deliver the business benefits accrued.

- A reversing of the 3-year trend has been achieved and this despite ongoing concerns in neighbouring Forces who have continued to experience increased ongoing problems related to those killed and seriously injured on PTW's.

- As a result of the return on our investment in this partnership project, closer working is ongoing with neighbouring Forces who have been seeking advice on the policy and practices adopted.

- Prosecution has its place but should be proportionate and combined with other measures. Current analysis indicates that enforced education systems like Rider Improvement Schemes are under utilized and there is scope for this to be improved. This is being actively considered locally and nationally.

- The ACPO policy for Bikesafe in terms of the police approach to enforcement and education has its roots in the Hampshire Constabulary policy which has been adopted in 2005.

- It has demonstrated that a cohesive and comprehensive partnership approach that tackles the problem on a number of different fronts that include, education, engineering, education and explanation via a wide range of communication mediums has been the bedrock of success upon which we take the Plan forward into 2005.

- No one single approach was ever going to have any long term effect. The pooling of resources working to an agreed strategy at both a strategic and a tactical level has demonstrated the clear benefits of working together to deliver a significant reduction in those killed and seriously injured on our roads.

- The ground work and necessary building blocks are firmly in place. The next phase is to build upon those very firm foundations and ensure longevity in this key area of our work. This requires an ongoing commitment and should continue to be reviewed and evaluated to keep it on track and alive to new ideas and developments.

Short Term Plan

The PRIME initiative BIKESAFE 03> short term objective was to reduce Killed and Serious Injury PTW Collisions by 15% year on year.

Medium Term Plan

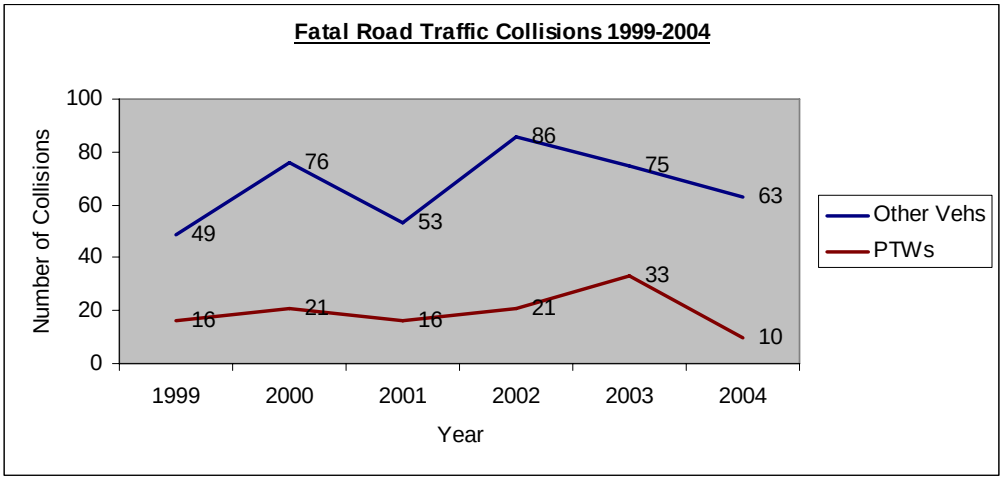
To reduce killed and serious injuries relating to PTW collisions by 50% over the baseline average figs of 2000-2002.

Long Term Plan

By the year 2010 to have reached the Government RCR 2010 Targets - to reduce the level of casualties involved in PTW collisions by 40%.

The first year reports show a 70% reduction in fatal collisions and a 10% reduction in serious injury collisions against those reported in 2003.

The base line averages for the year 2000-2002 inclusive were Fatal = 20, Serious Injury = 255, therefore a reduction that was far more than was anticipated has been achieved in the first year.



Costs in 2004

Engineering	£ 250,000.00
Police overtime	£ 7,500.00
Media	£ 5,000.00

Savings in 2004

23 human lives equates to approximately £24million in costs to the community.