

## HAMPSHIRE COUNTY COUNCIL

### Decision Report

<b>Decision Maker:</b>	Executive Member for Economy, Transport and Environment
<b>Date:</b>	23 July 2013
<b>Title:</b>	Burley Road, Brockenhurst, Traffic Calming Review
<b>Reference:</b>	5129
<b>Report From:</b>	Director of Economy, Transport and Environment

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#### 1. Executive Summary

1.1. The purpose of this paper is to review a trial traffic calming scheme and reach a decision on its future.

1.2. This paper seeks to

- report on vehicle speeds and accidents following the installation of the trial scheme;
- consider comments made by users of Burley Road; and
- reach a decision on what should happen to the pinch points.

#### 2. Contextual information

2.1. In September 2010 a series of nine pinch points were installed on a trial basis along Burley Road in Brockenhurst. They were installed with the aim of reducing traffic speeds and improving the safety of Commoners' animals, which have the right to roam in this part of the New Forest.

##### Reasons for installing traffic calming and details of the pinch points

2.2. In 2009 a number of residents from the South Weirs area of Brockenhurst formed the South Weirs Action Group for Safety (SWAGS) to campaign for measures to slow traffic in Burley Road in order to reduce animal casualties. It followed an incident where a car collided with a pony, injuring the pony and the occupants of the vehicle. The road also had a history of animal accidents. The group suggested the use of pinch points in a similar manner to those which were being used on a trial basis at that time in Ringwood Road, Burley.

2.3. During 2009 more than 1,100 signatures were collected on a petition requesting action to protect the animals, and a march took place through Brockenhurst. The campaign received a considerable amount of interest from the local press.

There were also calls to reduce the 40 mph limit to 30 mph. Discussions took place later in 2009 and 2010 with the local County Member, SWAGS, the Police and Brockenhurst Parish Council regarding details of a trial traffic calming scheme. The scheme was included on the 2010/11 New Forest Traffic Management Programme, which was approved by the New Forest Hampshire Action Team in April 2010. The trial scheme was installed in September 2010.

- 2.4. Nine pinch points were installed along the section of Burley Road where animal accidents had been occurring, as shown on the plan in Appendix 1. There was a need to space them at approximately equal distances to limit the ability of drivers to gain too much speed between pinch points. They were designed to have minimal visual impact on the surroundings but at the same time to be clearly visible to drivers. Despite this, the New Forest National Park Authority's landscape officer still expressed concern that the pinch points would have an urbanising effect. An image of one of the pinch points is shown in Appendix 2.
- 2.5. Although the pinch points are part of a trial, it was not possible to construct them entirely using temporary materials without looking urban. Therefore, wooden posts had to be installed with foundations. Bolt-down rubber kerbs were used to avoid the need for excavation that is required for standard concrete kerbs. The pinch points cost £40,000 to install.

#### Comments received during the trial

- 2.6. As with most traffic management schemes, many comments were received during the first few weeks after its installation. There has been a small amount of ongoing correspondence since. A summary of the comments received and a response from officers is included in Appendix 3.
- 2.7. The majority of comments relate to concerns about safety, particularly the absence of signs to indicate which direction of traffic has priority. This, however, is an intentional feature of pinch points where the uncertainty as to who has priority is intended to encourage drivers to proceed more slowly and cautiously. The most common comment has been to request priority signing.
- 2.8. A number of comments have been made about the timber bollards, stating they are a hazard due to their size and solid foundations. Whilst there is no requirement to provide passive safe measures on a road such as this, they can be installed, but no product is currently available which would be in keeping with the surroundings. Passive safe posts, which collapse on impact, tend to look urban. During the design stage of the trial scheme, concerns were raised about the impact of the traffic calming on the landscape even when timber bollards were proposed.
- 2.9. A common request received was for the 40 mph limit to be reduced to 30 mph. This is considered in the options below, together with some calls that have been made for specific pinch points to be removed.
- 2.10. A number of comments asked for removal of the pinch points due to their causing a danger to cyclists and motorcyclists. Whilst it would have been

preferable to allow a gap at the side of the pinch points for cyclists to pass, this was not possible due to the width of the road. The pinch points do, however, help to slow traffic throughout the traffic calmed length of Burley Road, which is beneficial to cyclists.

- 2.11. An unforeseen issue that arose is the pinch points prevent a farmer from taking his combine harvester along Burley Road to and from farms in Hinton Admiral, Beaulieu and Exbury. The gap at the pinch points is wide enough for the largest permitted vehicles, but not combines, which have to obtain approval from the Police before they can use public roads. The farmer and the NFU have asked for the pinch points to either be removed or the bollards moved back. The alternative route for the combine is now via Lyndhurst, which is longer and also causes disruption for traffic. The combine makes around three return trips a year.
- 2.12. Although many of the comments received about the pinch points were negative, this was not a consultation and therefore it is not unexpected that views opposing the measures would be made. Positive correspondence was received though in terms of the reduced speed of traffic. The Verderers and the Commoners Defence Association have both expressed their support for the traffic calming remaining in place and are concerned about what would happen if they were removed. The Verderers have, however, stated that their support is dependent upon issues about erosion of verges where vehicles wait at one of the pinch points being resolved.
- 2.13. SWAGS remains positive about the pinch points and has stated they should be left in place, but asked if priority signing could be considered.

#### Analysis of 'before' and 'after' data

##### (i) Animal accidents

- 2.14. According to data supplied to the National Park Authority by the Verderers, in the section of road covered by the traffic calming there were 22 collisions with animals in the five year period before the pinch points were installed compared to nine in the 28 months after. This equates to 4.4 per year before and 3.9 per year afterwards.
- 2.15. In terms of accidents that resulted in the death of an animal, there were nine in the five years before, or 1.8 per year, compared to four or 1.7 per year in the 28 months after. This shows there has been a modest decrease in accidents involving animals, but animal deaths are virtually unchanged. Further information is contained in Appendix 4.

##### (ii) Human injury accidents

- 2.16. In the section of road now covered by traffic calming, there were seven injury accidents in the five years before, of which four were classed as serious and three as slight, and three injury accidents, one serious and two slight, in the 28

months after. This equates to 1.4 injury accidents per year before compared to 1.3 per year afterwards, which shows little change.

2.17. Two of the 'before' injury accidents involved drivers either trying to avoid or colliding with an animal in the road. No such accidents were recorded in the 'after' period. The two slight injury 'after' accidents both occurred at pinch points. The serious injury 'after' accident did not occur at a pinch point but was reported by the Police to have occurred after an altercation between a driver and cyclist that took place at one of the pinch points. More information is contained in Appendix 5.

(iii) Damage only accidents

2.18. It is not usual practice to comment on accidents that do not involve injuries because they are not routinely recorded by the Police, unlike injury accidents. In some locations damage only accidents are more frequently reported than in others, which means they are not a particularly reliable means of assessing traffic management schemes. However, given the publicity of this scheme they are included in the analysis.

2.19. In the five year 'before' period there were 22 reported damage only accidents, of which 18 involved animals. This equates to 4.4 damage only accidents a year. In the 28 month period afterwards, there were 17 reported damage only accidents, of which 11 involved animals: three were at pinch points and three involved other circumstances. This is equal to 7.3 damage only accidents a year. Further details are contained in Appendix 6. It is notable that there are some slight differences between the number of animal collisions recorded by the Police and the Verderers.

(iv) Speed data

2.20. Vehicle speeds have been measured at four locations affected by the traffic calming. One set of surveys was carried out in 2009 and four sets have been carried out since the traffic calming was installed. The speed survey locations are shown on the plan in Appendix 1 and details of the results are provided in Appendix 7.

2.21. Mean speeds went down at all four sites in both directions in the 'after' surveys, apart from the site near North Weirs (site S1), where one of the four surveys recorded no change in speed in one direction. The change in speeds recorded between the 2009 'before' survey and the 'after' surveys were statistically significant at all but one of the sites on one of the survey dates.

2.22. The reductions in speed varied from 1 mph to 5 mph. The location where speeds appear to have reduced most is near Edgemoor Cottage (site S3) in the westbound direction, where surveys recorded reductions of between 3 mph and 5 mph. Speeds appear to have reduced the least at the survey point near Ford Cottage (site S2) where speeds were recorded as 1 mph lower eastbound in three 'after' surveys, and by 2 mph lower on one of the surveys.

### 3. Discussion and options

- 3.1. There has been a modest decrease in the number of animal accidents per year, although it cannot be stated with certainty as to whether this has occurred due to the pinch points. However, animal deaths and human injury accidents have not changed. There has been a marked increase in the number of damage only accidents per year, most of which involve animals.
- 3.2. It should be acknowledged that the traffic calming has been in for less than three years and it is difficult to identify any meaningful trends over such a short period. It is clear that mean vehicle speeds throughout the traffic calmed area have reduced, so drivers have more chance of avoiding a collision with an animal. The very presence of the pinch points is also likely to act as a reminder to drivers that they should be driving with caution. There are concerns about the traffic calming though, and five reported accidents have occurred, two of which resulted in injuries, at the pinch points.

#### Option 1 – removal of pinch points

- 3.3. It could be argued that the pinch points do not appear to have had a notable effect on reducing animal accidents and that accidents at some of the pinch points would not have occurred had they not been there. Some maintenance works are required even to leave the pinch points as they are now (damage at two of the features has occurred due to flooding). Removal would overcome concerns about the safety of the features and enable combine harvesters to resume use of the road. The concerns from those who campaigned for measures in the first place would resurface though. Removal of all the pinch points would cost approximately £4,500.

#### Option 2 – removal of some pinch points

- 3.4. Acknowledging that the pinch points have had a positive effect on reducing speeds, there is a strong case for retaining them. There have been particular comments about two of the pinch points though, therefore these alone could be removed. They are the first pinch point out of Brockenhurst and also the furthest. The first one is just beyond the existing 30 mph limit. Flooding occurs regularly here through the winter which has caused some damage. In addition, pedestrians are more likely to be walking in the road here than elsewhere in Burley Road due to its proximity to housing and the flooding of the adjacent gravel footpath. Speeds at the second pinch point were also well below 40 mph at the second pinch point, so this could be removed too.
- 3.5. Concerns have been raised about the ninth pinch point (furthest away from Brockenhurst) because of its proximity to the brow of a hill. Although visibility has been assessed to be adequate, removal of this pinch point should not have a particularly adverse effect on traffic speeds on the straight open section of the road. At some point, however, the remaining pinch points are likely to require reconstruction on a permanent basis. Removal of these three pinch points would cost approximately £1,500.

Option 3 – make pinch points permanent

- 3.6. The pinch points were constructed on a semi-permanent basis. The bollards have been installed as if they were permanent because they could not have been installed in another way, but the rubber kerbs and tarmac infill are temporary. To re-construct them on a permanent basis using concrete kerbs, replacing the wooden bollards with passive safe ones (if agreed), and using soil as infill behind the kerbs, would cost approximately £37,000.

Option 4 – provide priority signing

- 3.7. The current pinch points could remain in situ and signs erected at each one to state which direction of traffic has priority. This would effectively be extending the trial for a further period of time to find out whether concerns over the safety of the pinch points are resolved. Traffic calming that works on a signed priority basis generally uses build outs on one side of the road so that the layout makes it clear who has right of way. Pinch points, which narrow the road from both sides, do not lend themselves to this type of working.
- 3.8. Signs could still be provided though. They could be mounted relatively low so as to not look too unsightly but they would have to be mounted high enough so that a waiting car does not obstruct the view onto the sign for the driver behind. The signs for the two directions of traffic could be mounted back-to-back on the same post where possible. The National Park Authority has advised that it would not support the use of signs due to the visual impact on the landscape since the road passes through a Conservation Area as well as open forest. The Verderers have indicated that they would also have similar concerns about such signage being installed.
- 3.9. Accompanying 'give way' road markings would also be required. It would not be advisable to rely on the use of road markings alone due to the absence of street lighting and the speed of traffic. The cost of providing priority signing and markings is estimated at £8,500.

Option 5 – modifications to pinch points

- 3.10. One of the pinch points needs to be moved because vehicles are currently pulling across a resident's driveway in order to wait for oncoming vehicles, which is causing damage to the driveway and the edge of the road. If the pinch points are to remain in place this pinch point needs to be moved approximately 50 metres away. This will cost approximately £3,000.
- 3.11. To replace all the bollards with passive safe ones which collapse on impact would cost an estimated £21,000. The cost of moving back the bollards to accommodate a combine harvester would cost almost the same amount.

Option 6 – extend 30 mph speed limit and/or new animal warning signs

- 3.12. 30 mph speed limits tend to be reserved for roads where there is built-up development visible, and where it can reasonably be expected that drivers will

obey it without being reliant on enforcement. There is just about enough housing visible for the 30 mph limit to be extended from its current terminal point near The Rise to North Weirs. The traffic survey carried out prior to the traffic calming suggests that if the limit were extended this far it would be respected by most drivers even if the first pinch point, and possibly the second, were removed.

- 3.13. A 30 mph limit taken as far as South Weirs is unlikely to be respected unless the pinch points were to remain in place, and it would be unusual to use a 30 mph limit where there are so few buildings visible from the road. Vehicle speeds beyond South Weirs towards Burley along the very straight section of road are closer to 40 mph, even with the pinch points, and therefore extending the 30 mph limit this far is not recommended. The Police have indicated that they would not be supportive of extending the 30 mph limit to South Weirs or beyond.
- 3.14. A further signing option is to erect additional animal warning signs that have worded supplementary plates which change throughout the year. These have been deployed on a trial basis on the B3054 Beaulieu to Lymington Road, where there has been a subsequent fall in animal accidents, although it is too early to confirm this drop could be attributable to the signs. New warning signs would cost approximately £2,000. Extending the speed limit (which would require Department for Transport approval due to non-standard signing – although this should not be an issue) would cost approximately £2,500.

#### **4. Finance**

- 4.1. Options 1, 2, 4 and 6 can be funded from the County Traffic Management Programme Budget, as well as the slight modification of a pinch point described in Option 5. Option 3 and changing all the bollards as outlined in Option 5 would require alternative funding.

#### **5. Conclusion**

- 5.1. There are opposing views amongst the local community as to what should happen with the pinch points. Whilst their impact on animal accidents so far appears to have been modest, they have led to a reduction in traffic speeds, but there are concerns about safety due to the absence of priority signing, the timber bollards and how cyclists negotiate them. If the traffic calming was removed concerns about traffic speeds and animal accidents would be raised again. Both the Verderers and the Commoners Defence Association have stated that they believe the pinch points should be retained.
- 5.2. It is therefore recommended that a combination of the options above are used and that once in place the traffic calming should be monitored for a further two years.

**6. Recommendations**

- 6.1. That the 40 mph speed limit in Burley Road should be reduced to 30 mph between its junctions with The Rise and North Weirs (subject to public consultation through the Traffic Order process).
- 6.2. That the first, second and ninth pinch points (as described from Brockenhurst) should be removed.
- 6.3. That priority signing should be provided at the remaining pinch points, using the smallest signs acceptable for road safety at the lowest possible mounting height.
- 6.4. That the pinch point causing problems at a resident's driveway should be relocated.
- 6.5 That the traffic calming trial be extended for a further two years after implementation of the recommendations above and reviewed at the end of this period.

**CORPORATE OR LEGAL INFORMATION:****Links to the Corporate Strategy**

<b>Hampshire safer and more secure for all:</b>	yes
Corporate Improvement plan link number (if appropriate):	
<b>Maximising well-being:</b>	yes
Corporate Improvement plan link number (if appropriate):	
<b>Enhancing our quality of place:</b>	yes
Corporate Improvement plan link number (if appropriate):	

**Section 100 D - Local Government Act 1972 - background documents**

**The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)**

DocumentLocation

None

## **IMPACT ASSESSMENTS:**

### **1. Equalities Impact Assessment:**

- 1.1 The proposals in this report have been developed with due regard to the requirements of the Equality Act 2010, including the Public Sector Equality Duty and the Council's equality objectives. The website contains a summary [assessment of the impacts](#) in this service area, 1.4 Developing Hampshire's Highway Network and Transport System.
- 1.2 It is considered that the issues covered by this report will not have impacts requiring further specific actions by the Council above those already established in its existing policies and working procedures.

### **2. Impact on Crime and Disorder:**

- 2.1. There is not considered to be any impact on crime or disorder as a result of the proposals.

### **3. Climate Change:**

- a) How does what is being proposed impact on our carbon footprint / energy consumption?

There is not considered to be a direct impact on our carbon footprint or energy consumption.

- b) How does what is being proposed consider the need to adapt to climate change, and be resilient to its longer term impacts?

There are no direct impacts on climate change adaptations as a result of the proposals.

**APPENDIX 2**

**Photos of two pinch points in Burley Road**



Summary of comments received during the trial period

Type of individual or organisation	Comments	Officer response
Resident/road user	Signs should be placed at each pinch point to indicate who has priority. Pinch points cause a direct confrontation between drivers approaching from opposite directions if there are no priority signs.	There is no requirement to provide priority signing and this is not usually done at pinch points for the purpose of creating uncertainty, which encourages drivers to proceed more cautiously and slowly. Whilst some drivers may try and get through the narrowing before a vehicle in the opposite direction, this situation is still likely to occur if priority signing is provided.
Resident/road user	No consultation was carried out prior to the installation of the pinch points.	There was an extensive amount of publicity surrounding the SWAGS campaign for traffic calming in 2009. Several discussions also took place with the Parish Council. The Commoners Defence Association, the Verderers and the National Park Authority were also invited to submit comments.
Resident/road user	The bollards are difficult to see at night and are dangerous. The solid construction represents a hazard to any vehicle hitting them.	Each bollard has a reflective sign and reflective plate attached, and there are reflective road studs and white edge lines that guide drivers away from the kerbs. Police records do not indicate that there have been any collisions at the pinch points during hours of darkness. Bollards which collapse when hit are available, but these are plastic with yellow high visibility markings and look very urban.
Resident/road user	The pinch points present a real danger to cyclists and motorcyclists, who are forced into the middle	The road is not wide enough to provide a 'by-pass' behind the pinch points for cyclists. However, there has been a

<b>Type of individual or organisation</b>	<b>Comments</b>	<b>Officer response</b>
	of the road and faced with 'head to head' conflict with oncoming traffic.	reduction in vehicle speeds which does benefit cyclists.
Resident/road user	Short term clusters of accidents are being used to justify the traffic calming instead of looking at long term mean figures.	The data being examined since the pinch points have been installed is being compared to the five year 'before' period, which is consistent with the analysis undertaken for human injury accidents.
Resident/road user	The setting sun will obscure drivers' vision of the pinch points	The effects of low sun occurs in many locations and drivers should slow to a speed at which they can safely see ahead in such conditions.
Resident/road user	Concern over what will happen to the pinch point between The Rise and Armstrong Road when the road floods, which happens several times a year.	At times of flooding the pinch points can help funnel traffic into the centre of the road, so this should actually help drivers because the bollards will still be visible above the water line.
Resident/road user	The gravel path between The Rise and Armstrong Road often floods, which means pedestrians have to walk into the road, but it is not safe to do so past the pinch point since vehicles cannot pass pedestrians at the same time.	Pedestrians in the road will be visible to drivers and the presence of the pinch points help to slow traffic, which is a benefit to pedestrians.
Resident/road user	An extension of the 30 mph speed limit would have been preferable to the pinch points.	30 mph limits are generally reserved for roads in built up areas or where there is a noticeable development alongside the road. They are also most suitable where it can be expected that most drivers will obey the limit, such as where existing traffic speeds are already near 30 mph. A speed limit on its own is unlikely to have a notable impact on traffic speed. There are, however, some options for
Resident/road user	The traffic calming should be removed and the speed limit from South Weirs into Brockenhurst should be reduced to 30 mph. Traffic calming is justified on the open straight section from South Weirs towards Burley, but they should be built	

<b>Type of individual or organisation</b>	<b>Comments</b>	<b>Officer response</b>
	out from alternative sides with clearly marked priorities, and would also allow a gap to be left at the side for cyclists.	speed limit changes here (see main report). Build-outs could be used instead of pinch points, but this would effectively mean removing the existing measures and replacing them with new ones.
Resident/road user	The pinch points look unsightly/are a blot on the landscape and have spoiled the view.	The pinch points are of a semi-permanent construction since this is a trial scheme. If they are to be left in permanently there is an option to remove the tarmac infill behind the kerbs and replace it with soil, which will reduce their visual impact.
Resident/road user	Poor visibility at the last pinch point (i.e. furthest away from Brockenhurst) as you head over brow of hill towards Burley. This pinch point should be removed.	The visibility at this pinch point has been assessed to be adequate.
Resident/road user	The pinch points have made it safer for riders to go out into the adjacent forest on hacks, they are extremely effective at slowing traffic and should remain in place.	No comment.
Resident/road user	The traffic calming is effective at slowing traffic. Do not understand how some drivers claim not to see the pinch points or not know what to do as they approach them.	No comment.
New Forest Verderers	Supports retaining the traffic calming although there is an issue with road edge erosion at one of the pinch points which needs to be addressed due to encroachment by waiting vehicles.	The overrunning of the pinch point will be investigated.

<b>Type of individual or organisation</b>	<b>Comments</b>	<b>Officer response</b>
New Forest Commoners Defence Association	The presence of the traffic calming has improved conditions for their depastured stock in terms of vehicle speed and a reduction in accidents involving their animals. Removing the pinch points would be a backwards step. Believes the current set up rather than priority signing gives most encouragement to slow drivers.	No comment.
South Weirs Action Group for Safety	The majority of drivers slow at the pinch points and there has been a noticeable reduction in traffic speed. The traffic calming has stopped the problem of 'racers'. Suggest the consideration of priority signs.	No comment.
Farm Manager	Harvests crops for farmers in Beaulieu and Exbury, as well as his own in Hinton Admiral, using a combine. Cannot take the combine through Burley Road any more due to pinch points and has to go via Lyndhurst instead, which is a longer route and causes inconvenience to other drivers.	The need for combines to use Burley Road was not foreseen since they do not access land from the road and it did not arise during local discussions at the scheme design stage. Each pinch point is wide enough for all legally permitted vehicles to get through. Operators of wide vehicles such as combines must notify the Police before making a journey on public highway.
NFU (Brockenhurst)	The gap between the pinch points is too narrow for many tractors and combines. Request for width to be increased. Also concerned about who has right of way and that at night it is more difficult to see the pinch points	The bollards at each pinch point would need to be removed and set further back in order to accommodate combines.
Friends of Brockenhurst	Request for 30 mph speed limit from South Weirs into Brockenhurst.	See comments above relating to speed limits.

Each row of this table does not necessarily represent individual comments received but summaries the majority of comments made to the County Council since October 2010.



### Animal accidents

	Animal accidents 1/10/05 – 30/9/10					
	2005	2006	2007	2008	2009	2010
Accidents	0	6	6	4	6	0
Deaths	0	3	1	2	3	0

Table 1: animal accidents each year before traffic calming

	Animal accidents 1/10/10 – 31/1/13					
	2010	2011	2012	2013		
Accidents	1	5	3	0		
Deaths	1	0	3	0		

Table 2: animal accidents each year after traffic calming

	Before (1/10/05 – 30/9/10)	After (1/10/10 – 31/1/13)
Animal accidents	22	9
Animal accidents per year	4.4	3.9
Animal deaths	9	4
Animal deaths per year	1.8	1.7

Table 3: total number of animal accidents and accident rates before & after

The 'before' period is the five years prior to the introduction of the pinch points. The 'after' period goes up until the end of January 2013 because this is as up-to-date as human injury accident data is currently available, and to be consistent all accident data is being compared over the same time periods.

For the purposes of this report, animal accidents involve ponies, cattle or donkeys.

### Human injury accidents

	Injury accidents 1/10/05 – 30/9/10					
	2005	2006	2007	2008	2009	2010
Accidents	0	0	0	4	3	0
Slight	0	0	0	2	1	0
Serious	0	0	0	2	2	0

Table : human injury accidents each year before traffic calming

	Injury accidents 1/10/10 – 31/1/13					
	2010	2011	2012	2013		
Accidents	0	3	0	0		
Slight	0	2	0	0		
Serious	0	1	0	0		

Table 2: human injury accidents each year after traffic calming

#### 'Before' period

- 5 of the 9 accidents involved a single vehicle
- 2 of the 9 accidents involved motorcyclists
- 1 of the 9 accidents involved a pedal cyclist
- No accidents involved pedestrians or riders

#### 'After' period

- 1 of the 3 accidents involved a single vehicle
- None of the accidents involved motorcyclists, pedestrians or riders
- 2 of the 3 accidents occurred at a pinch point
- One accident occurred at the 6<sup>th</sup> pinch point out of Brockenhurst (just west of South Weirs). One vehicle struck the pinch point. No other vehicles were involved.
- An accident also occurred at the 2<sup>nd</sup> pinch point out of Brockenhurst (near Armstrong Close). One vehicle collided head on with another vehicle.

**Damage only accidents**

	Damage only accidents 1/10/05 – 30/9/10					
	2005	2006	2007	2008	2009	2010
Accidents	1	7	3	5	4	2
Involving animals	0	6	3	5	3	1
Hit in rear	1	0	0	0	1	0
Other	0	1	0	0	0	1

Table 1: damage only accidents each year before traffic calming

	Damage only accidents 1/10/10 – 31/1/13					
	2010	2011	2012	2013		
Accidents	3	4	9	1		
Involving animals	2	1	8	0		
Involving pinch points	0	2	0	1		
Hit in rear	1	0	1	0		
Other	0	1	0	0		

Table 2: damage only accidents each year after traffic calming

There is little detail available regarding these incidents since the Police are not required to collect and maintain records on damage only accidents. It is possible that other damage only accidents have occurred in Burley Road and were not recorded, but this would be the same situation for any road in the country. No more than one accident was recorded at the same pinch point.

### Vehicle speed data

Speed data was recorded at four sites along the section of Burley Road where traffic calming has been provided. Three of the sites used automatic recording equipment over a seven day period (sites S1 – S3). Manual radar gun surveys were carried out at one site (S4) due to the absence of street furniture on which to attach recording equipment.

The results in the following five tables show the speeds recorded before the pinch points (Table 1) and after (Tables 2 – 5). The speeds shown for sites S2 – S4 are those recorded over a seven day period between 7am and 7pm.

The mean speed survey results have been tested to determine whether the change in speeds between the 2009 'before' survey and the subsequent 'after' surveys are statistically significant. Figures followed by an asterisk are statistically significant.

85<sup>th</sup> percentile speeds (the speed at or below 85% of vehicles are travelling) have also been recorded in addition to mean speeds. The majority of survey sites on most of the survey dates recorded reductions in 85<sup>th</sup> percentile speeds. Statistical tests have not been carried out on these figures.

Location/date	Mean		85%ile	
S4 track Radar 12/5/09	41 mph Westbound	40 mph Eastbound	44 mph Westbound	44 mph Eastbound
S3 Opp Edgemoor Cottage 12–18 May 09	37 mph Westbound	34 mph Eastbound	44 mph Westbound	40 mph Eastbound
S2 o/s Ford Cottage 12–18 May 09	34 mph Westbound	34 mph Eastbound	41 mph Westbound	43 mph Eastbound
S1 Opposite North Weirs 12–18 May 09	31 mph Westbound	32 mph Eastbound	37 mph Westbound	39 mph Eastbound

Table 1: May 2009 'before' speed surveys

Location/date	Mean		85%ile	
S4 track Radar 10/5/11	38 mph * Westbound (-3 mph)	39 mph * Eastbound (-1 mph)	41 mph Westbound (-3 mph)	41 mph Eastbound (-3 mph)
S3 Opp Edgemoor Cottage 9 - 16 May 11	32 mph * Westbound (-5 mph)	31 mph * Eastbound (-3 mph)	39 mph Westbound (-5 mph)	37 mph Eastbound (-3 mph)
S2 o/s Ford Cottage 9 - 16 May 11	33 mph Westbound (-1 mph)	33 mph * Eastbound (-1 mph)	42 mph Westbound (+1 mph)	41 mph Eastbound (-2 mph)
S1 Opposite North Weirs 9 - 16 May 11	29 mph * Westbound (-2 mph)	27 mph * Eastbound (-5 mph)	37 mph Westbound (no change)	35 mph Eastbound (-4 mph)

Table 2: May 2011 'after' speed surveys  
(Change in speed compared to 2009 survey shown in red)

Location/date	Mean		85%ile	
S4 track Radar 28/11/11	39 mph ** Westbound (-2 mph)	36 mph * Eastbound (-4 mph)	45 mph Westbound (+1 mph)	41 mph Eastbound (+1 mph)
S3 Opp Edgemoor Cottage 29 Nov – 6 Dec 11	34 mph * Westbound (-3 mph)	33 mph * Eastbound (-1 mph)	40 mph Westbound (-4 mph)	39 mph Eastbound (-1 mph)
S2 o/s Ford Cottage 2 – 10 Nov 11	32 mph * Westbound (-2 mph)	33 mph * Eastbound (-1 mph)	39 mph Westbound (-2 mph)	40 mph Eastbound (-3 mph)
S1 Opposite North Weirs 2 – 10 Nov 11	30 mph * Westbound (-1 mph)	29 mph * Eastbound (-3 mph)	36 mph Westbound (-1 mph)	36 mph Eastbound (-3 mph)

Table 3: Nov/Dec 2011 'after' speed surveys  
(Change in speed compared to 2009 survey shown in red)

Note: survey equipment at site S3 between 2 – 10 November 2011 failed, therefore it was repeated from 29 November – 6 December 2011.

Location/date	Mean		85%ile	
S4 track Radar 14/5/12	38 mph * Westbound (-3 mph)	36 mph * Eastbound (-4 mph)	44 mph Westbound (no change)	40 mph Eastbound (-4 mph)
S3 Opp Edgemoor Cottage 17 – 24 May 12	33 mph * Westbound (-4 mph)	32 mph * Eastbound (-2 mph)	40 mph Westbound (-4 mph)	38 mph Eastbound (-2 mph)
S2 o/s Ford Cottage 17 – 24 May 12	30 mph * Westbound (-4 mph)	32 mph * Eastbound (-2 mph)	38 mph Westbound (-3 mph)	40 mph Eastbound (-3 mph)
S1 Opposite North Weirs 17 – 24 May 12	29 mph * Westbound (-2 mph)	29 mph * Eastbound (-3 mph)	36 mph Westbound (-1 mph)	36 mph Eastbound (-3 mph)

Table 4: May 2012 'after' speed surveys  
(Change in speed compared to 2009 survey shown in red)

Location/date	Mean		85%ile	
S4 track Radar 28/2/13	38 mph * Westbound (-3 mph)	37 mph * Eastbound (-3 mph)	45 mph Westbound (+1 mph)	43 mph Eastbound (-1 mph)
S3 Opp Edgemoor Cottage 25 Feb – 4 Mar 13	32 mph * Westbound (-5 mph)	31 mph * Eastbound (-3 mph)	39 mph Westbound (-5 mph)	36 mph Eastbound (-4 mph)
S2 o/s Ford Cottage 25 Feb – 4 Mar 13	32 mph * Westbound (-2 mph)	33 mph * Eastbound (-1 mph)	39 mph Westbound (-2 mph)	40 mph Eastbound (-3 mph)
S1 Opposite North Weirs 25 Feb – 4 Mar 13	31 mph Westbound (no change)	29 mph * Eastbound (-3 mph)	37 mph Westbound (no change)	36 mph Eastbound (-3 mph)

Table 5: February 2013 'after' speed surveys  
(Change in speed compared to 2009 survey shown in red)

- \* significant at 99% confidence level
- \*\* significant at 95% confidence level