

ITEM 5 - LATE REPORT

North Yorkshire County Council

Business and Environmental Services

Transport, Economy and Environment Overview and Scrutiny Committee

31 October 2017

Temporary Vehicle Activated Signs (VAS) Protocol

Report of the Corporate Director – Business and Environmental Services

1.0 Purpose of Report

- 1.1 To provide an update on the roll-out of the Temporary VAS scheme throughout North Yorkshire.
- 1.2 To provide the rationale behind the decision not to allow Parish Councils or other parties to purchase their own temporary VAS signs to install in the highway.

2.0 Background

- 2.1 A Task Group of the Transport, Economy and Environment Overview and Scrutiny Committee met in June 2012. It recommended the introduction of a Temporary VAS Protocol. This was subsequently approved in principle by the Executive in September 2012 with a decision that Business and Environmental Services (BES) Executive Members approve the detail of the Protocol and approve the introduction of a 12 month 'Initial Phase'. BES Executive members approved the 'Initial Phase' in November 2012.
- 2.2 The Temporary VAS Protocol was developed for those communities with local speeding concerns but which, following assessment through the Speed Management Protocol, fall below the threshold required for further action by the 95 Alive Road Safety Partnership. These sites have a perceived speeding problem only in the sense that recorded speeds are classified as low and there are low or no recorded casualty figures.
- 2.3 Eligibility for inclusion in the 'Initial Phase' was based on historic data obtained largely through the Speed Management Protocol. Where a site had already been assessed as Category 3 (high speeds with low casualties) or Category 4 (low speeds with low casualties), selected local communities (willing to fund the rotation and installation costs) were offered a temporary VAS.
- 2.4 The final list of communities invited to participate in the 'initial phase' were selected by a prioritised random draw by the BES Executive Members.
- 2.5 In total sixteen solar powered vehicle activated signs with data loggers (to record vehicle speeds and volume) were purchased. Fourteen of the signs were rotated following a six week deployment at individual sites within participating communities. The remaining two were used as spares in case of failure or breakdown. Each of 31 participants had three six week deployments of at least one VAS over the course of 12 months.

- 2.6 The overall findings of the 'initial phase' and proposed way forward were reported to the NYCC Executive on 9 December 2014.
- 2.7 The way forward was approved by the NYCC Executive, and subsequently the Prioritisation Process by BES Executive Members in January 2015. This approved way forward allowed for the expansion of the Vehicle Activated Signs protocol with a charge to be applied to participating communities, of a minimum of £3500+VAT over four years.
- 2.8 The charge was to include the one-off cost of installation of a retention socket (£500), rotation costs (£350 per sign per year), and officer time of £400 per year, as well as a share of the cost of the 12 additional signs that were purchased.
- 2.9 The agreed way forward allowed for any community that raises speeding concerns through the Speed Management Protocol and is assessed as Category 4 to be offered the option of participation in the temporary VAS process.
- 2.10 It should be noted that as this way forward was approved in December 2014/January 2015, there are still 2 years left until the current arrangements expire, if they were taken up at the start of the process.

3.0 Temporary VAS Rollout

- 3.1 Take up of Temporary VAS continues to be encouraging, with communities from all seven districts and boroughs of North Yorkshire participating in the process, and feedback being generally positive.
- 3.2 There are now 30 signs deployed on a rotating basis across the county.
- 3.3 The communities currently (as of 11 October 2017) participating in the process are listed at Appendix A.
- 3.1 Some communities have elected to share the cost of participating in the process with another Parish (e.g. Bellerby and Leyburn), which allows for reduced expenditure, but naturally results in fewer deployments to each of the two locations over the course of the four years.

4.0 Purchase of Temporary VAS by Parish Councils or Other parties

- 4.1 The installation of Vehicle Activated Signs (VAS) across North Yorkshire is tightly controlled in accordance with County Council policies and protocols. This control is exercised for a number of reasons, the most important of which is that the signs should be consistent countywide both in terms of design and location, and that they should not be allowed to proliferate, as overuse has been shown by a number of studies to reduce the effectiveness of VAS.
- 4.2 Traffic Advisory Leaflet 1/03 Vehicle Activated Signs, produced by the Department for Transport, lays out principles behind the placement and operation of VAS. This guidance makes clear that VAS "should be considered only when there is an accident problem associated with inappropriate speed that has not been satisfactorily remedied by standard signing and where safety cameras and related signs are not a cost effective or otherwise appropriate solution". This is the approach followed by NYCC.

- 4.3 There are two NYCC protocols that cover the installation of VAS across the county, one for Permanent VAS signs, and one for Temporary VAS, which are rotated throughout the county to a series of sockets which have been located in towns and villages which are taking part in the process, having been chosen by Parish Councils. In this case the signs are in place for three six week deployments per year for four years. The Permanent VAS Protocol was originally approved by the Corporate Director, in consultation with BES Executive Members in November 2012, and an amendment was approved in March 2015, while the Temporary VAS Protocol was approved by the Executive in September 2012, with the full roll out approved in December 2014.
- 4.4 Sites are only eligible for a Permanent VAS (i.e. in place 24/7/365 in one location), when all of the following criteria are met:
- There is a personal injury collision problem at the site or on the road in question.
 - The personal injury collision problem is associated with inappropriate or excessive speeds.
 - The personal injury collision problem cannot satisfactorily be resolved through the introduction of conventional collision remedial or traffic calming measures.
 - The location must allow safe working conditions for staff when attending the speed sign. (Electrical Engineering Team to be consulted).
 - A funding source has been identified.

A permanent VAS can depict a specific highway hazard, (such as a bend, junction, or crossroads etc.), or alert a motorist to the current speed limit, (the latter may be accompanied by a message such as 'Slow Down').

- 4.5 A request for a new permanent VAS will only be considered where the site has been identified as a Category 1 or 2 priority site as set out in the Speed Management Protocol. Category 3 and 4 sites will not warrant an assessment for permanent VAS. The criteria for Categories 1 and 2 are:
- Category 1 – Speed High (meets or exceeds thresholds for both mean and 85% speeds or mean speeds exceed enforcement threshold of 10%+2) and Casualties High.
 - Category 2 – Speed Low and Casualties High.
- 4.6 It can therefore be seen from the above that to qualify for a permanent VAS, a location must have a record of personal injury collisions. Most permanent VAS are therefore installed following High Risk (or Collision Cluster) Site investigations by the County Council's Traffic Engineering Team. Permanent VAS are used as an intervention of last resort where every other intervention has been tried and there is still a speed related collision history. This is in line with DfT guidance in TAL 1/03.
- 4.7 While the overuse of temporary VAS signs would be expected to reduce their own effectiveness, an even greater concern is that they would also reduce the effectiveness of the Permanent VAS that have been located in eligible locations, leading to a possible increase in collisions.
- 4.8 Where there is not a collision history sufficient to justify a permanent VAS, NYCC operate a Temporary VAS scheme, which allows parishes to benefit from the benefits of a VAS, but maintains the rotation of the signs, prevents proliferation, and allows control over the type of signs used in North Yorkshire to maintain consistency. It has been proven by various studies (e.g. TRL Published Project Report PPR314, 2008), that VAS gain a lot of their effectiveness from a 'novelty' effect, and should therefore

only remain in place for a short period. Temporary VAS is open to locations that have been through the Speed Management Protocol, and been categorised as 3 or 4:

- Category 3 – Speed High and Casualties Low.
- Category 4 – Speed Low and Casualties Low/None.

- 4.9 The current version of the Temporary VAS Protocol was approved by the Executive on 9 December 2014, and under these arrangements NYCC does not make any profits from the scheme. A copy of the Executive report is attached as Appendix B. The charges simply cover the purchase of the signs, the rotation costs, and the staff costs associated with operating the scheme. A number of parishes have previously stated that they could procure the signs cheaper than the cost of taking part in the approved protocol, and a motion was presented to the Richmondshire Area Committee asking the County Council to allow them to procure their own signs. While these parishes report that they could purchase a sign directly from a supplier for £2,500, this does not include a number of items which are part of the NYCC charge. These elements include the installation of a socket which can cost up to £500, the rotation of the signs, and also covers the parish in case of faults. The standard call-out charge for a VAS fault can be £500-600, which NYCC absorb and do not pass onto the parish councils. While the £2,500 charge may therefore appear to be attractive to begin with, once the signs are out of warranty and become aged, the cost of keeping them operational will start to build up. This will of course be difficult to predict, as opposed to the regular costs of the temporary VAS system.
- 4.10 It has been suggested that NYCC's policy on VAS is out of step with other local authorities, and is ineffective, however none of North Yorkshire's neighbouring authorities are directly comparable according to the criteria used in road safety monitoring (as set out in the 95Alive Annual Reports). These comparator authorities are established via two different methods, either using the CIPFA measures of financial or political characteristics, or the Highway Authority Class measures of demography and geography. In terms of Highway Authority Class, the nearest comparator geographically to North Yorkshire is Northumberland. North Yorkshire showed a greater reduction in KSI casualties in the 2014-15 Financial Year (the latest for which full data is available), indicating that this county does not have a significantly greater road safety problem than comparative authorities. In addition, a lower percentage of casualties in North Yorkshire are injured in a collision involving excessive or inappropriate speed compared to the national average (9% compared to 12%), and a lower proportion of fatalities were speed related (18% compared to 25% nationally), suggesting that all of NYCC's action against excessive speed – including Temporary VAS – is having a positive effect.
- 4.11 The key point regarding the decision not to allow Parishes to purchase their own VAS signage, is around proliferation, and the reduced effectiveness of these signs if they are seen everywhere – as demonstrated by research – as well as the inability of the authority to ensure consistency of signage. There are however a number of other factors. The key point is that what NYCC provide to parishes are "Temporary" VAS, where the signs are located in the parish for 6 weeks before being rotated elsewhere, and returned 12 weeks later. If a parish was to purchase their own sign, it would be located permanently in the village in question. There has been a suggestion that several villages could share a sign and rotate it themselves, however this is not thought to be feasible without employing a specialist contractor, which would significantly increase costs, or risk expensive damage to the signs, through untrained operatives trying to move the signs.

- 4.12 Permanent VAS is covered by a different protocol, and in North Yorkshire they are used as an intervention of last resort where every other intervention has been tried and there is still a speed related collision history. The use of these signs in the circumstances described is contained within a protocol which has been agreed by the Corporate Director and BES Executive Members.
- 4.13 The rationale behind rotating the signage is to ensure that it maintains its effectiveness and experience and evidence from national research shows that permanent signage lose their effectiveness over time as drivers on the route (particularly locals) start to ignore them. The control of permanent signage within the highway, to ensure that the signage is both consistent in design and is used in an appropriate manner, helps ensure driver understanding, and VAS is no different.
- 4.14 In conclusion, it is felt that the current Temporary VAS Protocol provides a cost effective, efficient means of deterring speeding in villages across the county, while at the same time allowing NYCC to maintain control of the signage. The available research suggests that the current approach is effective as it ensures consistency – both of approach and design – and a protection against the proliferation of signs in inappropriate locations.
- 4.15 At the present time, the Temporary VAS Protocol is only two years into the four year period of time for which the first communities in the full roll-out were enrolled. Any communities that have joined since then are correspondingly earlier within the four year scheme.

5.0 Financial Implications

- 5.1 The Temporary VAS Protocol is designed to simply cover its operating and management costs, without making any surplus.
- 5.2 The recommendations as set out below suggest that no changes should be made to the Temporary VAS Protocol at the present time, to at least allow the four year period of the scheme to expire for the first communities to take part, therefore there are no financial impacts from these proposals.
- 5.3 If it was subsequently determined that Parishes should be allowed to purchase their own signs, this should have no financial impact on the County Council, as the costs of the existing equipment, and operation of the scheme would still be covered by those communities that wish to remain part of the process.

6.0 Equalities Implications

- 6.1 Consideration has been given to the potential for any adverse equality impacts arising from the recommendation. It is the view of officers that the VAS Protocol does not have an adverse impact on any of the protected characteristics identified in the Equalities Act 2010. An Equality Impact Assessment Screening Form is attached as Appendix B.

7.0 Legal Implications

- 7.1 The signs remain in the ownership of NYCC throughout their effective life and responsibility for deployment and maintenance rests with NYCC. As they are purchased, owned and erected by NYCC, the Council's activity in this respect will be covered by its own insurance.

- 7.2 The specifications for traffic signs (including Vehicle Activated Signs) are prescribed by the Traffic Signs Regulations and General Directions 2016.
- 7.3 If Parishes were able to purchase their own signs, they would need to ensure that they had appropriate indemnities and insurance in case of damage or injury caused to third parties.
- 7.4 Third parties do not have the authority to place traffic signs (including Vehicle Activated Signs) within highway land without the permission of the Local Highway Authority – Section 65 of the Road Traffic Regulation Act 1984 (“the 1984 Act”) provides that the traffic authority may cause or permit traffic signs to be placed on or near a road.
- 7.5 The Local Highway Authority has a duty to protect road users, and therefore has the powers to require the removal of signs from third party land, if they are a distraction to drivers – Section 69 of the 1984 Act allows a traffic authority by notice in writing to require the owner or occupier of any land to remove any fixed or portable sign.
- 7.6 If there was to be a change to the protocol, to allow Parishes to purchase their own signs, further discussions and agreements would be required between the County Council and any third party wishing to place VAS, to determine the full legal and insurance implications of the change.

8.0 Recommendation

- 8.1 That the Committee notes the update regarding the current position of the Temporary VAS rollout.
- 8.2 That the Committee notes the reasoning behind the current position of not allowing communities to purchase and place their own VAS.
- 8.3 That the Committee receives a further report on the Temporary VAS arrangements at the end of the four year period from the commencement of the rollout agreed in December 2014/January 2015, to allow for full analysis of the impacts of the scheme.

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Background Documents:

- Appendix A: List of Communities Currently Participating in Temporary VAS
- Appendix B: Report of the Corporate Director – Business and Environmental Services to the NYCC Executive, 9 December 2014, “Outcome of the ‘Initial Phase’ of the Temporary Vehicle Activated Sign (VAS) Protocol
- Appendix C: Equality Impact Assessment Screening Document

List of Communities Currently Participating in Temporary VAS

- **Area 1 (Richmondshire)**
 - Hipswell
 - Bellerby
 - Leyburn
- **Area 2 (Hambleton)**
 - Brompton
 - Shipton
 - Hutton Rudby
 - Sutton under Whitestonecliffe
 - Newton on Ouse
 - Morton on Swale
- **Area 3 (Scarborough)**
 - Hinderwell
 - Eskdaleside cum Ugglebarnby
 - Snainton
 - West Ayton
 - Cayton
 - Lythe
- **Area 4 (Ryedale)**
 - Amotherby
 - Normanby
 - Old Malton
 - Appleton le Moors
 - Kirkbymoorside
- **Area 5 (Craven)**
 - Bentham
 - Cononley
 - Embsay
 - Gargrave
- **Area 6 (Harrogate)**
 - Knaresborough
 - North Stainley
 - Sharow
 - Sicklinghall
 - Ripon
- **Area 7 (Selby)**
 - Riccall
 - Skipwith
 - Cliffe
 - Monk Fryston
 - Hambleton

North Yorkshire County Council

Executive

9 December 2014

Outcome of the 'Initial Phase' of the Temporary Vehicle Activated Sign (VAS) Protocol

Report of the Corporate Director – Business and Environmental Services

1.0 Purpose Of The Report

- 1.1 To inform members of the outcome of the 12 month 'initial phase', to advise on the feedback from participating communities and to report the overall findings of the evaluation exercise. Given the level of interest in the pilot, this report also seeks members' views on a proposed way forward for the roll out of the Temporary VAS Protocol which involves inviting additional communities to participate.

2.0 Background

- 2.1 A Task Group of the Transport, Economy and Environment Overview and Scrutiny Committee met in June 2012. It recommended the introduction of a Temporary VAS Protocol. This was subsequently approved in principle by the Executive in September 2012 with a decision that Business and Environmental Services (BES) Executive Members approve the detail of the Protocol and approve the introduction of a 12 month 'Initial Phase'. BES Executive members approved the 'Initial Phase' in November 2012.
- 2.2 The Temporary VAS Protocol was developed for those communities with local speeding concerns but which, following assessment through the Speed Management Protocol, fall below the threshold required for further action by the 95 Alive Road Safety Partnership. These sites have a perceived speeding problem only in the sense that recorded speeds are classified as low and there are low or no recorded casualty figures.
- 2.3 Eligibility for inclusion in the 'Initial Phase' was based on historic data obtained largely through the Speed Management Protocol. Where a site had already been assessed as Category 3 (high speeds with low casualties) or Category 4 (low speeds with low casualties), selected local communities (willing to fund the rotation and installation costs) were offered a temporary VAS.
- 2.4 The final list of communities invited to participate in the 'initial phase' were selected by a prioritised random draw by the BES Executive Members.
- 2.5 Before the list of 31 participants was finalised, 34 other communities turned down the opportunity to participate, mainly because they did not have the

necessary funds available to participate. This process resulted in some late entries and a subsequent delay in the programme.

- 2.6 In total sixteen solar powered vehicle activated signs with data loggers (to record vehicle speeds and volume) were purchased. Fourteen of the signs were rotated following a six week deployment at individual sites within participating communities. The remaining two were used as spares in case of failure or breakdown. Each participant had three six week deployments of at least one VAS over the course of 12 months.
- 2.7 The first deployment of the signs was on 17 June 2013 and the final sign was removed from North Stainley on 15 September 2014.
- 2.8 Despite some early problems regarding the installation and siting of the signs the project followed the agreed programme.

3.0 Objectives Of The 'Initial Phase'

- 3.1 The main objective of the 'initial phase' was to provide those communities with a perceived speeding problem only with a tool to remind motorists of the posted speed limit and to reassure these communities that there is generally good compliance.
- 3.2 The vehicle activated signs have been an educational device as they have demonstrated that there is not a speeding problem as such to be addressed in some places but in others helped identify sites that do have high speeds.
- 3.3 The outputs from the 'Initial Phase' will be fed back into the Speed Management Protocol for assessment.

4.0 Feedback

- 4.1 The feedback from participating communities has been generally very positive and the demand for the signs in the future from those in the current phase (with an actual speeding problem) is high.
- 4.2 The general consensus is that the signs do work and do visibly reduce approaching speeds. When approach speeds trigger the speed limit reminder and the 'SLOW DOWN' message residents have commented on the high number of motorists who react by braking.
- 4.3 There has been some minor negative feedback regarding the appearance of the sign assembly. A number of residents have been in contact to complain about the size of the solar panel and how the sign is unsightly. Should the recommendation be approved to roll out the Temporary VAS further, smaller sized solar panels will be purchased.
- 4.4 Upon receipt of the results of the analysis that compared 'before' speeds with 'during' speeds, a number of communities were disappointed to learn that the VAS had a minimal effect on driver behaviour. They assumed the VAS was

being ignored and their involvement in the 'initial phase' had been a waste of money. When the recorded data from these sites was analysed it was clear that the majority of speeds registered were below the posted speed limit. The mean (average) speed was therefore less than the 30 or 40mph restriction in place.

- 4.4.1 The VAS unit only activates when approaching speeds are above the speed limit which means that areas with good compliance will only have occasional activations. Therefore, for the vast majority of the time the sign was not triggered. This explains why the VAS generally has a minimal effect in locations with a perceived speeding problem only. For this reason some communities have already opted out of any future roll out.
- 4.4.2 The community of Hetton in Craven District is a good example. Existing mean speeds were at least 4mph less than the 30mph speed limit and there are only approximately 300 vehicles per day travelling through the village. The VAS did achieve a 0.3% reduction in mean speeds but as speeds are very low already and the volume is low the impact of the VAS was minimal. For this reason Hetton Parish Council has already indicated that it would not participate in the future.
- 4.5 A number of communities willing to continue in the scheme are concerned at the gap between the end of the 'initial phase' and the start of a potential second year. It has been necessary to carry out detailed analysis in order to report on the 'initial phase' since the end of the 12 month trial. The final sign was removed from North Stainley on 15 September 2014.
- 4.6 Each participant was informed verbally and in writing that the 'initial phase' was for a 12 month period. However, there has been some frustration regarding perceived wasted expenditure (particularly the cost to install sockets in the ground) should the scheme not be extended.

5.0 VAS Performance

- 5.1 To make an accurate assessment of the performance of the vehicle activated signs it was important to record speed data 'before' the signs were deployed and then compare these speeds with data recorded 'during' deployment. This comparison would ultimately determine the success of the scheme in reducing speeds. However, members should note that the purpose of the 'Initial Phase' was to provide reassurance to communities with low recorded traffic speeds rather than the signs providing an actual speed reducing function. Nevertheless, after analysing the recorded data, mean vehicle speeds were observed to be lower when the vehicle activated signs were in-situ.
- 5.2 As a general rule, the higher the 'before' speeds were above the speed limit (and where higher volumes of traffic were counted) the greater the percentage reduction was when the VAS was deployed.
- 5.3 Attached as Appendix 1 is a very brief summary of the results of the comparison between 'before' and 'during' speeds for all the participants. This information is not as detailed as the format of the results that were issued to

each community but it gives an indication of the effectiveness of the VAS by stating the percentage reduction achieved by the introduction of the unit at each site. The number of results under each heading reflects the number of sites within the community.

6.0 Questionnaire Issued To Participants

6.1 In preparation of this report all the participants were asked to respond to a number of set questions regarding their experience and future interest in any future roll out of the Temporary VAS Protocol. Twenty one out of 31 responses have been received so far. The results of the questionnaire are as follows:

- 95% were pleased they participated in the 'initial phase'
- 76% were pleased with the service provided by the County Council and 19% were not pleased
- 60% thought the money they spent was good value and 35% did not
- Potentially 80% would still be interested in participating if they had to purchase their own sign and pay for rotation costs (52% of these would not require the sign to have a data logging facility, 38% would still require a data logging facility)
- 20% would not be interested in taking part in a future scheme

6.2 The participants also had the opportunity to make any comments about the 'initial phase' and possible future participation. A summary of the 'Initial phase' comments are as follows:

- 'the signs made a big difference, just what our Parish needs'
- 'very good scheme'
- 'we would welcome the opportunity to continue'
- 'speed evidence was inconclusive - councillors felt that even if high speeds had been detected, NYCC would not be able to implement any measures because of budget restraint'
- 'deployments were not implemented well by the contractors'
- 'there were some incidents when the sign seemed to malfunction'
- 'it was useful to have the scheme reinforced by the police when the VAS was deployed as it picked up drivers ignoring the VAS'
- 'there were incidents when the signs were set up incorrectly but this was generally quickly sorted out by the County Council'
- 'why can the police not let us have a mobile camera unit, we would be much happier if the police were to enforce the speed limits'

6.3 A summary of comments received regarding possible future participation are as follows:

Comments Received	Officer Response
<p><i>'we would expect a refund of the amount if the signs are not available next year'</i></p> <p><i>'we were led to believe that the signs would be available for more than one year'</i></p> <p><i>'the parish council did not feel that the scheme was worth the money'</i></p>	Each participant was informed several times that the scheme may not continue and that they were participating in a 12 month 'initial phase'. All costs were highlighted at an early stage.
<i>'would NYCC be prepared to assist small parishes with interest free loans to purchase a VAS'</i>	It is recommended that the County Council purchase a limited number of signs.
<i>'we would like more certainty about continuation of the scheme before investing more'</i>	An agreement between NYCC and participants needs to be in place.
<i>'we would prefer to purchase our own equipment for continuous use'</i>	This is a temporary scheme and it would not be appropriate to allow permanent installations outside of the protocol because of proliferation concerns.
<i>'cannot understand why the signs would not be reused as already purchased'</i>	The signs could be reused at sites with an actual speeding problem subject to approval by members.
<i>'there would have to be some form of shared cost between parishes otherwise too costly'</i>	Agreed
<i>'it is a shame that this cannot continue, we have received many positive comments'</i>	Recommend continuation of scheme subject to approval by members.

7.0 'Initial Phase' Costs

7.1 Participating communities were charged for the installation of a retention socket in the ground and for three rotations of the VAS in the 'initial phase'. The installation cost was a one-off charge and all costs were payable up-front. The installation charge was £300 per socket installed in verge or £400 per socket installed in the footway. The rotation costs were £330 per sign per year (based on three deployments).

7.2 Actual socket installation costs and rotation costs:

- 55 sockets for the vehicle activated signs have been installed across the County and there were 126 individual rotations;
- actual cost to supply/install retention sockets amounted to £22,020 (at an average cost of £400.36);
- actual cost to rotate signs amounted to £12,600 (which equates to an average of £100 per rotation – participants were charged £110 per rotation);
- total money received from communities for socket installation and sign rotation amounted to £30,860;

- £30,860 – (actual costs of £22,020 + £12,600) = - £3,760;
- An additional £3,760 was incurred for the installation of sockets and the rotation of signs because we purchased better quality retention sockets.

7.3 The total capital cost to the County Council of the ‘initial phase’ is set out below:

Purchase of 16No 30/40mph vehicle activated signs, SIM cards and configuration costs	£44,804
Undertaking speed surveys	£12,000
Purchase of 16No posts for signs	£2,000
Cost for socket installation	£22,020
Sign rotations	£12,600
(Subtotal)	(£93,424)
- Monies from participating parishes	-£30,860
Net Capital Cost of ‘Initial Phase’	£62,564

7.4 Significant staff time (revenue) has been allocated to this project to deal with site meetings, correspondence and issuing speed data. The Team Leader in Traffic Engineering has spent a good proportion of his time being the contact point for all correspondence and has personally responded to every piece of communication.

Posts Involved	Approximate % of overall time spent on project
Traffic Engineering Team Leader	20%
Assistant Engineer, Traffic Engineering	25%
Project Manager, Road Lighting	10%

7.5 Participating communities have not been charged for any revenue costs associated with the ‘Initial Phase’. The total revenue cost incurred by the three posts on this project since April 2013 is approximately £40,000.

8.0 Expressions of Interest

8.1 The number of adjoining parishes expressing an interest in the scheme continues to grow. So far, 27 as yet non-participating communities have confirmed their interest in writing which has doubled since the production of the ‘Interim Report’ in April 2014. These communities have seen the VAS and have been impressed by the impact they have on motorists and are very keen to have similar signs in their village. Many are aware of the current costs involved but if they were to increase, the number of communities that would still have the necessary funding to participate is unknown. The interested communities have registered speeding concerns through the Speed Management Protocol.

8.2 Such is the popularity of the VAS a number of villages expressing an interest in the scheme originally wanted to purchase and rotate their own equipment

themselves. Communities wishing to go down this route have been discouraged, in order to avoid potential proliferation of the VAS and reduced effectiveness.

- 8.3 Additional interest may come from the communities that were not shortlisted in the 'Initial Phase' random draw and other Category 4 sites.

9.0 Current Situation

- 9.1 No temporary vehicle activated signs will be deployed around the county until a decision is made on the future of this initiative.
- 9.2 The existing stock is currently being stored at the Leeming Depot. It is fully functional but the VAS units, solar panels and posts are already showing signs of wear and tear caused during transit and erection on site.
- 9.3 If the scheme does continue and additional communities are offered a VAS additional stock will be required to satisfy demand.

10.0 Proposed Way Forward

- 10.1 Although proliferation of VAS needs to be avoided, a county the size of North Yorkshire can accommodate an increase in the number of temporary VAS on the network without loss of effectiveness. As long as the County Council has control over the amount of VAS on the highway and of where VAS are located, overuse of the signs will be prevented.
- 10.2 Although it has been demonstrated that the road safety benefit in deployment of the Temporary VAS at Category 4 sites (low speeds and low/no casualties) is minimal, for some participating communities, their presence has a reassurance effect and an associated community benefit.
- 10.3 It is therefore considered that when a site is assessed as Category 4 and, therefore through the Speed Management Protocol, no further action is required, the option should exist for communities wishing to participate in future years to receive a VAS through the County Council.
- 10.4 It is proposed that the County Council purchase an additional 14 signs, which will be offered to communities willing to fund the necessary costs involved. This would take the number of temporary VAS operating in the county to 28.
- 10.5 This option of a temporary VAS could also be extended to any community that raises speeding concerns through the Speed Management Protocol should they prefer this as an option over any measures as proposed by the Community Road Safety Partnership.
- 10.6 The proposed way forward with temporary VAS is as follows:

Speed Management Category	Proposed VAS Treatment
Category 4 (Low Speeds – Low Casualties)	Interested communities must fund: <ul style="list-style-type: none"> • installation costs for sockets (if required) • rotation costs • any data collection required • officer time

- 10.7 As the number of potentially interested communities will exceed the number of available VAS, the final participants should be selected from a random draw. ‘Initial Phase’ participants will be prioritised before the non-shortlisted communities and the parishes that have expressed an interest in the scheme. Each participant will be expected to take part in the scheme for a period of 4 years.
- 10.8 A total of 18 communities were not shortlisted for participation in the ‘initial phase’. It is proposed that these 18 communities along with the 27 parishes that have expressed an interest in the future roll out and all other current Category 4 sites should be given a number and drawn at random from BES Executive Members. The results of the draw will be recorded by an officer in attendance and the list will be ranked accordingly. The communities selected will then be invited to participate in the order they were drawn. This is the same approach that was adopted for identifying the participating communities in the ‘Initial Phase’.
- 10.9 Approximately 50 Category 4 sites have been processed in the last 12 months and there are over 100 Category 4 sites in total.

11.0 Community Speed Watch - PILOT

- 11.1 It is also worth noting that North Yorkshire Police are currently planning several pilot locations for the introduction of Community Speed Watch. Here, local police volunteers, in conjunction with community representatives will stand at the roadside monitoring traffic speeds. With an expected February 2015 start date, the pilot is expected to last for six months. The registration plate of any vehicles that set off a vehicle activated sign (threshold set at ACPO guidelines for speeding, ie 10% plus 2 mph) will be noted and sent a standard template letter from the Deputy Chief Constable offering suitable words of advice. NYCC officers will continue to liaise closely with North Yorkshire Police with respect to the pilot phase.
- 11.2 It is proposed that communities that are not successful in the random draw should still be given the opportunity to take part in the Temporary VAS initiative through their payment of a service not the purchase of a sign. In addition to the costs associated with rotation, installation and officer time communities would be expected to fund the equivalent cost of a sign assembly. The County Council would maintain ownership of the sign and would be responsible for the maintenance costs.

12.0 Anticipated Future Costs

12.1 The paragraph below sets out the revenue type work involved in any future roll out and the costs for each participant based on the actual costs incurred during the 'initial phase'.

Officer Tasks (Revenue)

- contacting parishes to confirm participation and arrange meeting
- meeting parishes to discuss scheme involvement, costs and agree sign locations
- finalising scheme costs and receiving payment
- co-ordinating sign deployments with contractor
- arranging maintenance of signs when required
- corresponding regularly with contractors regarding deployments
- corresponding with participants to resolve any problems

12.1.1 If an additional 14 signs are deployed onto the network and half of the 'initial phase' participants continue to participate as expected, revenue costs need to be recovered.

12.1.2 Based on all the tasks above and the time these tasks took during the 'Initial Phase' future officer time will be charged at £400 per year per participant. This cost does not include the cost of any traffic surveys required by the participants. Should any participating community wish to understand before/during speeds, they will be charged an additional £300 for a traffic survey to recover actual costs incurred. Therefore, this will be an optional extra for participants to consider paying for, should they so wish.

The table below sets out details of the costs that will be charged should the decision be made roll out the Temporary VAS protocol further:

<u>Capital Expenditure Item</u>	<u>Anticipated Cost (excluding VAT)</u>
Cost of vehicle activated sign assembly without data logger (including post + solar panel)	£2200.00 to be funded by the County Council through the Integrated Transport Capital Block Allocation
Retention Socket (Installed)	£500 (one-off cost)
Sign Rotation (three rotations per year)	£350 per year
Officer Time	£400 per year
7 day Speed Survey	£300 (optional)

12.2 Case Study 1 – Based on the proposed charges the cost to the community for one sign (with one socket) to be rotated for four years would be £3500.

If communities were charged the same rates as the 'initial phase' the costs for one sign (with one socket) to be rotated over four years would have been either £1620 or a £1720, depending on where the retention socket was positioned.

The proposed charges include officer time (£1600) as well as additional contractor costs since the 'Initial Phase' was rolled out.

- 12.2.1 Case Study 2 – Based on the proposed charges the cost for one sign (with one socket) to be rotated for four years (with one speed survey each year) would be £4700.

Speed surveys were undertaken free of charge during the 'initial phase'. The proposed charge for one speed survey per year over four years is £1200. This charge will cover the cost of the survey to the County Council and the time taken to analyse the data.

- 12.3 A comparison of the 'initial phase' costs involved and the proposed costs is as follows:

	'Initial Phase' Costs	Proposed Temporary VAS Initiative Costs
Sign Assembly	No Charge	No Charge
Socket Installation	£300 or £400	£500
Sign Rotation	£330 per year	£350 per year
Officer Time	No Charge	£400 per year
Speed Survey Cost	No Charge	£300 per survey

- 12.4 Any existing sites that had retention sockets installed during the 'initial phase' will not be charged for installation costs unless more sockets are required.

13.0 Equalities Implications

- 13.1 Consideration has been given to the potential for any adverse equality impacts arising from the recommendation. It is the view of officers that the recommendation does not have an adverse impact on any of the protected characteristics identified in the Equalities Act 2010.

14.0 Financial Implications

- 14.1 The recommendation does have a financial impact as new stock will have to be purchased for new participants. If 14 sign assemblies were purchased to satisfy the likely initial demand this would cost approximately £32,000, which would be funded from the Integrated Transport capital block allocation.
- 14.2 The initial purchase of additional sockets and posts required for 14 signs would cost in the region of £13,000, which will be funded from Integrated Transport block allocation. The cost of the sockets will be recovered from the participants through the charge.
- 14.3 Revenue staff costs will be recovered through the introduction of a £400 per year fee for each participant.

15.0 Legal Implications

- 15.1 The 28 signs will remain in the ownership of NYCC throughout their effective life and responsibility for deployment and maintenance rests with NYCC. As they are purchased, owned and erected by NYCC, the Council's activity in this respect will be covered by its own insurance.

16.0 Recommendation

- 16.1 That Executive Members approve the future roll out of the Temporary VAS Protocol that includes introducing a charge, as set out on this report, to cover officer time costs.
- 16.2 For those parishes where limited finances may prohibit their participation in the Temporary VAS initiative, it is recommended that the Corporate Director in conjunction with BES Executive Members consider an appropriate approach. The expectation is that this will be informed, at least in part, by the development of Community Speed Watch in North Yorkshire by North Yorkshire Police.
- 16.3 That communities have the opportunity to pay a sum equivalent to the cost of a sign, in order to take part in the Temporary VAS initiative when the 28 signs are fully deployed.
- 16.4 That Executive Members approve the use of a random draw as a fair and objective method of identifying future participating communities in the Temporary VAS Protocol.

DAVID BOWE

Corporate Director – Business and Environmental Services

Author of Report: Allan McVeigh

Background Documents: None

APPENDIX 1

<u>Participating Parish By District</u>	<u>% Reduction in 85thile Speeds</u>			<u>% Reduction in Mean (average) Speeds</u>		<u>Existing Speeds (High/Medium/Low)</u>			<u>Daily Volume (High/Medium/Low)</u>		
Richmondshire											
Catterick	-3.3%			-2%		Medium			Medium		
Barton	Not available			Not available		Medium			Low		
Hipswell	Not available			Not available							
Gilling West	9.3%			6.1%		Medium			Medium		
Middleham	11%			7.8%		High			Low		
Hambleton											
Hutton Rudby	12.1%	8.8%	15.4%	9.2%	High	High	Low	Low			
Sutton Under W/cliffe	5%	8%	5.8%	Not available	Med	Med	High				
Shipton by B/brough	7.96%		9.7%		Medium			High			
Newton on Ouse	Not comparable			Not available		Medium			Low		
Brompton	1.4%			1.1%		Medium			Medium		
Yorkshire Coast & Moors											
Hinderwell	5.5%	5.7%	4.4%	6.7%	Med	Med	Medium				
Sleights	-4.1%			-4.7%		Low			High		
Ryedale											
Swinton	4.1%			3.4%		Low			High		
Flaxton	3.6%			5.5%		High			Low		
Thornton Le Dale	9.2%	-5.3%	8%	3.9%	Med	Low	High	Low			
	7.5%	-8.9%	5.6%	-9.8%							
Sheriff Hutton	1.5%	15.6%	2%	13.2%	Low	Med	Low	Low			
Craven											
Cononley	2.6%			-2.2%		Low			Low		
Bentham	12.3%	11.1%	8.8%	9.2%	Med	Med	Low	Low			
Hetton	-5.8%			0.3%		Low			Low		
Giggleswick	2.2%	2.6%	3.1%	3.6%	Med	Med	Med	Med			
Harrogate											
Minskip	2.82%			2.17%		Medium			High		
Sharow	8.2	2.5	11.7	7.8	1.6%	10.6	High	Med	Med	Med	Med
Scotton	-0.5%			0.1%		Low			Low		
Sicklinghall	15%	9.4%	12.1%	4.4%	Med	Med	Low	Low			
Knaresborough Town	3.9%	Not avail	5.3%	Not avail	High	Med	High	High			
North Stainley	Not comparable but could be 8.6%			Not comparable but could be 8.5%		High	Med	High	High		
Selby											
Riccall	10.7%			7.4%		Medium			Medium		
Wighall, Tadcaster	9.5%			8.7%		Medium			Medium		
Sherburn in Elmet	Not available			Not available							
Camblesforth	1.4%			0.5%		Low			High		
Stillingfleet	16.3%	-1.4%	15.2%	-1.5%	High	Low	Med	Med			

The green figures in the table above indicate a reduction in speed when the VAS was deployed. The red figures indicate a slight increase in speed when the VAS was

deployed. In locations with red text the majority of motorists travel under the speed limit so there is good compliance.

'High' speeds indicate recorded speeds well above the posted speed limit. (In the Speed Management Protocol these sites are classified as being Category 3). 'Medium' speeds are speeds at or close to the speed limit and 'Low' speeds are vehicle speeds well below the limit.

For a 'High' volume the site has in excess of 2000 vehicles per day. For 'Medium' volume the site has 1200 to 2000 vehicles per day and 'Low' volume indicates that less than 1200 vehicles use that particular stretch of road.

This categorisation of speeds and volume is for the purpose of this report only and is not taken from any legislation or guidance.

Shown below is the format of the results that have been issued to the participating communities. The table below for Stillingfleet highlights the fact that within one village there was both a reduction in speeds (30mph section) and an increase in speeds (40mph section) when the VAS was deployed. Volumes on both roads are similar but the compliance on each road is very different. This clearly shows how the VAS generally has a greater effect when 'before' speeds are high and volumes are high and has a minimal effect when speeds are low.

Date	27/04/2013	04/02/2014	17/09/2013	14/01/2013	20/05/2013	27/04/2013	04/02/2014	17/09/2013	14/01/2013	20/05/2013
	Stillingfleet, B1222 York Road (Southbound)					Stillingfleet, B1222 Cawood Road (Eastbound 40mph)				
	Tubes Before	Tubes During	VAS 1	VAS 2	VAS 3	Tubes Before	Tubes During	VAS 1	VAS 2	VAS 3
85th% (Mon - Fri)	45	37.8				43.9	42.7			
85th% (Sat)	46.2	39				43.6	44.4			
85th% (Sun)	46	38				43.9	43.9			
Mean Speed (Mon - Fri)	37.5	31.6				37.5	37.6			
Mean Speed (Sat)	38.1	32.5				37.5	38.6			
Mean Speed (Sun)	37.7	32.1				37.8	38.3			
Volume (Mon - Fri)	1238	1116	952	792	1172	1470	1194	1069	1098	918
Volume (Sat)	882	672	786	521	1035	1225	926	1028	1141	770
Volume (Sun)	673	564	789	558	789	1121	709	847	805	769
Mon - Fri %>30mph	88%	54%	63%	58%	51%	N/A	N/A	N/A	N/A	N/A
Mon - Fri %>35mph	58%	24%	33%	28%	26%	N/A	N/A	N/A	N/A	N/A
Mon - Fri %>40mph	N/A	N/A	N/A	N/A	N/A	24%	25%	35%	35%	36%
Mon - Fri %>46mph	N/A	N/A	N/A	N/A	N/A	7%	9%	13%	13%	13%
Sat %>30mph	87%	61%	67%	70%	52%	N/A	N/A	N/A	N/A	N/A
Sat %>35mph	64%	30%	37%	41%	26%	N/A	N/A	N/A	N/A	N/A
Sat %>40mph	N/A	N/A	N/A	N/A	N/A	21%	35%	33%	34%	35%
Sat %>46mph	N/A	N/A	N/A	N/A	N/A	7%	14%	12%	13%	12%
Sun %>30mph	87%	61%	66%	68%	63%	N/A	N/A	N/A	N/A	N/A
Sun %>35mph	65%	29%	37%	34%	32%	N/A	N/A	N/A	N/A	N/A
Sun %>40mph	N/A	N/A	N/A	N/A	N/A	25%	31%	34%	37%	32%
Sun %>46mph	N/A	N/A	N/A	N/A	N/A	9%	12%	12%	13%	11%

Metric	Tubes Before	Tubes During
85th% (Mon - Fri)	45	37.8
85th% (Sat)	46.2	39
85th% (Sun)	46	38
Mean Speed (Mon - Fri)	37.5	31.6
Mean Speed (Sat)	38.1	32.5
Mean Speed (Sun)	37.7	32.1

Metric	Tubes Before	Tubes During
85th% (Mon - Fri)	43.9	42.7
85th% (Sat)	43.6	44.4
85th% (Sun)	43.9	43.9
Mean Speed (Mon - Fri)	37.5	37.6
Mean Speed (Sat)	37.5	38.6
Mean Speed (Sun)	37.8	38.3

For Sutton Under Whitestonecliffe an 'after' survey was also commissioned to see if the VAS had a lasting effect on driver behaviour after removal. For most days 'after'

speeds were higher than 'during' speeds but lower than 'before' speeds. The results from the analysis can be seen below. The duration of the speed reducing legacy effect was not recorded.

	Tubes Before	Tubes During	Tubes After
85th% (Mon - Fri)	34.4	32.7	33.6
85th% (Sat)	34.4	32.3	33.9
85th% (Sun)	33.9	32.5	34.1
Mean Speed (Mon - Fri)	30.3	28.7	29.8
Mean Speed (Sat)	30.8	28.5	30.3
Mean Speed (Sun)	30.3	28.9	30.4
Volume (Mon - Fri)	2828	3578	2477
Volume (Sat)	2545	3953	2112
Volume (Sun)	2938	3733	2165

The 'after' speeds in the table above were recorded one week after the removal of the VAS and one week after the 'during' data was collected. The duration of the lower speeds following removal of the sign is unknown but this legacy example is encouraging.

Equality Impact Assessment Screening Document

Initial equality impact assessment screening form (As of October 2015 this form replaces 'Record of decision not to carry out an EIA')			
This form records an equality screening process to determine the relevance of equality to a proposal, and a decision whether or not a full EIA would be appropriate or proportionate.			
Directorate	BES		
Service area	Highways & Transportation		
Proposal being screened	Temporary VAS Protocol		
Officer(s) carrying out screening	James Smith		
What are you proposing to do?	Continue with the operation of the Temporary VAS Protocol as agreed by NYCC Executive in December 2014.		
Why are you proposing this? What are the desired outcomes?	To allow the VAS Protocol to continue to provide Vehicle Activated Signs (VAS) to communities across North Yorkshire on a rotational basis, as part of the Council's work to reduce speed related collisions.		
Does the proposal involve a significant commitment or removal of resources? Please give details.	There will be no removal of resources as a result of continuing to operate the protocol, the resource commitment remains as already established, with officer time covered by participants in the protocol.		
Is there likely to be an adverse impact on people with any of the following protected characteristics as defined by the Equality Act 2010, or NYCC's additional agreed characteristics?			
As part of this assessment, please consider the following questions:			
<ul style="list-style-type: none"> To what extent is this service used by particular groups of people with protected characteristics? Does the proposal relate to functions that previous consultation has identified as important? Do different groups have different needs or experiences in the area the proposal relates to? 			
If for any characteristic it is considered that there is likely to be a significant adverse impact or you have ticked 'Don't know/no info available', then a full EIA should be carried out where this is proportionate. You are advised to speak to your Equality rep for advice if you are in any doubt.			
Protected characteristic	Yes	No	Don't know/No info available
Age		No	
Disability		No	
Sex (Gender)		No	
Race		No	
Sexual orientation		No	
Gender reassignment		No	
Religion or belief		No	
Pregnancy or maternity		No	
Marriage or civil partnership		No	

NYCC additional characteristic			
People in rural areas		No	
People on a low income		No	
Carer (unpaid family or friend)		No	
Does the proposal relate to an area where there are known inequalities/probable impacts (e.g. disabled people's access to public transport)? Please give details.	No – It is not proposed to make any changes to the current protocol.		
Will the proposal have a significant effect on how other organisations operate? (e.g. partners, funding criteria, etc.). Do any of these organisations support people with protected characteristics? Please explain why you have reached this conclusion.	No – It is not proposed to make any changes to the current protocol.		
Decision (Please tick one option)	EIA not relevant or proportionate:	<input checked="" type="checkbox"/>	Continue to full EIA:
Reason for decision	It is not proposed to make any changes to the current protocol, therefore there are no equalities implications.		
Signed (Assistant Director or equivalent)	<i>Barrie Mason</i>		
Date	19.10.2017		