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**Decision Session –  
Executive Member for City Strategy**

**20 October 2009**

Report of the Director of City Strategy

**VEHICLE ACTIVATED SIGNS (VAS) POLICY**

**Summary**

1. This report contains suggested policy guidelines for the use of VAS and options for monitoring VAS installations to assess their effectiveness.

**Recommendations**

2. That the Executive Member notes the content of the report and approves the following:-

- a. Local Transport Plan(LTP) funding will only be used where the 85%ile speed equals or exceeds the signed limit by 10%+2mph (i.e. 35mph in a 30mph limit, and 46mph in a 40mph limit). This would be consistent with the speed enforcement thresholds employed by the police.

Reason: To ensure a consistent approach and targeted use of LTP resources.

- b. Where the LTP funding criteria is not met, a Ward Committee or Parish Council may still wish to fund the installation of a VAS. In this situation, it is recommended that a threshold of 85%ile speeds being 10% above the speed limit should be adopted (i.e.33mph in a 30mph limit and 44mph in a 40mph limit).

Reason: To make sure VAS are used in appropriate areas.

- c. That monitoring of traffic speeds at VAS sites is carried out at approximately 3 months after implementation to gauge initial performance, and then again at around 3 years (or earlier if considered appropriate), along with a review of accident records, to assess the long term effectiveness of the sign.

Reason: To ensure appropriate data is available to enable an informed decision to be made about whether a VAS should be retained (and replaced when required), or redeployed somewhere else.

- d. That the outcomes of this monitoring process and officer recommendations be reported to the Executive Member in respect of LTP funded VAS, and Ward Members in respect of Ward Committee funded VAS, for decisions to be made on the retention or possible re-deployment of the VAS.

Reason: To ensure that matters relating to VAS deployment are considered by the appropriate body.

## **Background**

3. Vehicle activated signs (VAS), are a relatively recent addition to the range of road side signs that are authorised by the Department for Transport (DfT). They display a message when they are approached by a vehicle exceeding the speed limit or going too fast for the type of road, for instance at a hazard such as a bend. For example, a 'warning sign' can be displayed to advise of a specific hazard ahead, such as a bend or crossroads, or the 'speed limit' sign to remind motorists of the prevailing limit. In addition a displayed traffic sign may be accompanied by the message 'SLOW DOWN'.
4. The DfT in Traffic Advisory Leaflet 1/03 state that VAS should be considered only where there is an accident problem associated with inappropriate speed that has not been satisfactorily remedied by standard signing.
5. The introduction of VAS in York has been discussed in a number of previous "Six Monthly Review of Speeding Issues" reports, which were considered by the Executive Member for City Strategy and Advisory Panel (EMAP). At the meeting of EMAP on 30 October 2006 it was decided that the use of VAS in York should not be restricted only to those locations where there is a casualty record.
6. As a result of decisions made at these meetings there are currently 50 VAS in York, all relating to speed limits (7 in 20mph speed limits, 38 in 30mph and 5 in 40mph limits). Of these, 16 have been funded by Ward Committees. So far, no hazard warning VAS have been introduced in York.
7. A general assessment of the performance of these VAS signs was reported to EMAP in March 2009. This showed that the effectiveness of VAS tends to reduce with time as drivers become familiar with them. Therefore EMAP requested this report to review the criteria for installation of new VAS signs, monitoring procedures, and what to do if they become ineffective.

## **Proposals**

### **General Application of VAS**

8. To avoid a proliferation of their use and a dilution of their effect on drivers, it is recommended that the CYC policy should be to only use VAS (for speed management or hazard warning purposes) where there is data led evidence that one would be beneficial, and after other low cost solutions have been fully considered.

### **Speed Management VAS**

9. Requests for speed management VAS will normally be evaluated through the Speed Review process. As part of this a speed survey will be carried out to give evidence of whether a VAS is justified.

10. To warrant Local Transport Plan (LTP) funding it is recommended that a VAS should only be considered where the 85%ile speed equals or exceeds the signed limit by 10%+2mph (i.e. 35mph in a 30mph limit, and 46mph in a 40mph limit). This would be consistent with the speed enforcement thresholds employed by the police.
11. Where this LTP funding criteria is not met, a Ward Committee or Parish Council may still wish to fund the installation of a VAS. In this situation, it is recommended that a threshold of 85%ile speeds being 10% above the speed limit should be adopted (i.e.33mph in a 30mph limit and 44mph in a 40mph limit).
12. VAS are usually set up to trigger at a speed level 10% above the signed limit. This allows for a degree of inaccuracy in the speedometers of vehicles and thereby avoids complaints about the sign being displayed when a driver thinks they are travelling within the speed limit. Therefore, providing a VAS where the 85%ile speed is lower than this level would result in only a small number of drivers seeing the “Slow Down” message.

### **Hazard Warning VAS**

13. The potential use of hazard warning VAS will normally be assessed through the Local Safety Scheme or Danger Reduction Scheme evaluation processes. As part of this process the following sources of data will be looked at; police injury accident records, evidence of damage only collisions, speed and flow data, and any anecdotal information available.

### **Monitoring**

14. The monitoring of VAS installations is considered important to ensure that they are achieving the desired outcomes. This presents different challenges depending on the main purpose of the VAS.
15. For **hazard warning VAS** the effectiveness can quite easily be assessed by looking at accident savings achieved after a 3 year period. This information is easily accessible via the police records, which are held on a computer database. If accident numbers do not reduce, this may point to the need to give serious consideration to other ways of tackling the problem.
16. In contrast, the effectiveness of **speed management VAS** can only accurately be assessed by carrying out detailed speed surveys, which are quite expensive to undertake and analyse (a typical speed survey costs around £100, plus some staff time for subsequent analysis and reporting). In all cases speed surveys need to be carried out as part of the initial VAS assessment process, and these will form the base “**before**” data. However, the resource implications of any “**after**” monitoring regime need to be carefully considered, bearing in mind that there are already 50 such sites and more are likely to be introduced in the future. Some options for levels of monitoring are outlined below:-

#### *Level One –no “after” monitoring*

17. This would avoid all “after” survey costs, but would not provide any reliable means of assessing if the VAS is effective, either in the short or long term. This

could be a particular problem if the VAS breaks down at some point in the future and is beyond economical repair (although current VAS do come with a 5 year warranty). A decision would then have to be taken whether to invest in a new VAS or abandon the site. Without further survey data it would be difficult to make an objective decision on this. Therefore this option could not be recommended.

*Level Two – just some short term after monitoring*

18. About 3 months following installation an “after” speed survey could be carried out (a 24 hour seven day survey is suggested). This would enable a check to be made that the sign is having a positive impact on traffic speeds, after drivers have had a reasonable amount of time to get used to it being there. If the results were not positive, then other actions need to be considered at an early date. However this option would not allow any longer term changes on driver behaviour to be tracked, and again this could be a problem when a decision has to be made about replacing the sign at some point in the future.

*Level Three –short term and long term after monitoring*

19. In addition to a three month “after” survey to assess the short term effectiveness of the VAS, this option proposes that another survey should routinely be carried out after the sign has been operating for 3 years to assess the long term impact of the sign. This would enable an informed decision to be made about whether the sign should be retained (and replaced when required), or possibly be redeployed elsewhere.
20. Level three monitoring would clearly be the most expensive option (2x £100 for the surveys, plus staff time for analysis and reporting), but the gathering and assessment of good quality data at 3 months and 3 years after the sign is installed is considered very important towards ensuring that VAS remain an effective measure. Hence this option is recommended.

**Evaluation and Decision Making**

21. If the proposed monitoring regime for VAS is formally adopted, officers would evaluate the data gathered at both the 3 month and 3 year intervals. If any issues arise from either the short term or long term monitoring (i.e. either speeds or accidents numbers return to their “before” levels), the matter would be reported to the appropriate decision making body, as outlined below.
22. Where a VAS has been funded through the **Local Transport Plan**, the matter would be referred to the **Executive Member for City Strategy** via a brief evaluation report prepared by officers. In the scenario where a sign has ceased to have a positive effect (i.e. no reduction in accidents or the number of drivers exceeding the trigger speed of the VAS) a recommendation is likely to be made on re-deploying the sign at another site already identified as likely to benefit from this sign being used there.
23. Where a sign has been funded by the **Ward Committee** the matter would be referred to the **Ward Councillors**, again via a brief evaluation report prepared by officers. In the scenario where a sign has ceased to have a positive effect, a recommendation is likely to be made that the Ward Committee consider re-

deploying the sign at another site within the same Ward. If a suitable alternative site could not be identified within that Ward, consideration would be given to locating it elsewhere.

## **Consultation**

24. Officers consulted with Councillors D'Agorne, Gillies and Potter as leaders of the main political parties on the draft proposals. The Police were also consulted. Their responses are summarised below.
25. **Councillor D'Agorne** supports Level Three and states that funding for this would need to be considered as part of the budget for the whole programme.
26. **Councillor Gillies** is of the opinion that the more of these signs that appear the less effect on speeding they have. He feels that the adding of software to the VAS to record speeds etc, would be useful in order that concentration on the most frequently triggered signs can be enforced by further measures.
27. **Officer comment.** The sign manufacturer has indicated that it will soon be possible to purchase an add on feature which will enable a VAS sign to record traffic survey data. This is likely to be priced at about £1200, which is approximately 50% of the current cost of a VAS. This would be a significant extra cost for each sign installation, and the benefits would need to be carefully compared to the current practice of just doing surveys as and when needed.
28. **Councillor Potter** supports Level Three as the only sensible course to get any proper evaluation of the use of VAS and their long term need in any particular place.
29. **The Police** view is that the proposals will accomplish very little and do not support them. They consider that VAS should only be used as a casualty reduction tool when there is an accident problem associated with inappropriate speed that has not been satisfactorily remedied by other measures.
30. **Officer comment.** VAS is being used as a speed management tool and not just for casualty reduction. Whilst this goes against DfT guidelines it was considered by EMAP in October 2006 and the decision was made that the use of VAS in York should not be restricted only to those locations where there is a casualty record.

## **Options**

31. The basic options are to accept the proposals set out in this report, amend them or reject them.

## **Analysis of Options**

32. It is considered important to have a policy in place covering the provision of VAS in the city, to ensure a consistent approach to implementation and to avoid a proliferation of such signs, which would diminish their effectiveness. The proposals put forward offer a structured but flexible approach to VAS and should help to improve road safety.

33. The leaders of the political groups have indicated support to the proposals with a strong preference for Level Three monitoring to be adopted as the norm.
34. The police have expressed a view that when VAS are used in inappropriate locations they are ineffective, and they should be considered when there is an accident problem associated with inappropriate speed. However, as a result of the EMAP decision taken in October 2006, many VAS are now used in York as part of speed management and danger reduction schemes rather than pure casualty reduction schemes. The proposed monitoring and evaluation process should ensure that any ineffective signs are identified and options for re-deployment considered.
35. If the recommendations are rejected then there will be no means of assessing VAS requests or whether the existing ones are justified.

### **Corporate Priorities**

36. VAS have the potential to provide safer roads and therefore contribute to the corporate priorities aimed at making York a Safer City.

### **Implications**

This report has the following implications:

#### **Financial**

37. The cost of monitoring a typical VAS site at 3 months and 3 years will be around £200 per site for the actual speed surveys, plus an amount of staff time for follow up analysis and reporting. This will vary depending on what the monitoring reveals, but for estimating purposes an average staff time cost of around £300 would seem reasonable. This gives a total estimated cost of around £500 for future monitoring of a VAS.
38. It is anticipated that only a modest number of new LTP funded signs will be introduced year on year. Therefore the costs of monitoring should not be a significant problem to accommodate within future Capital Programmes under the budgets allocated for speed management or road safety work. Similarly, future Capital Programme funding would also be appropriate if the monitoring process leads to a recommendation that an LTP funded VAS would be better re-deployed elsewhere, or confirms that one is working well and should be renewed if breaks down (the VAS currently used in York have the benefit of a 5-year comprehensive warranty).
39. Where a new VAS is funded by a Ward Committee, a sum of around £500 to cover monitoring will need to be clearly identified by the Ward Committee as a future commitment within its budget process. Furthermore, any subsequent costs involved in re-locating a VAS, or replacing a defective one which is outside its 5-year warranty period will need to be met by the Ward Committee.

## **Human Resources**

40. None.

## **Equalities**

41. None

## **Legal**

42. City of York Council, as highway authority for the area, has powers to place VAS on the highway. VAS comply with the Traffic Signs and General Directions 2002.

## **Crime and Disorder**

43. None.

## **Information Technology**

44. None.

## **Land & Property**

45. None.

## **Risk Management**

46. In compliance with the Council's risk management strategy, the main risks linked to this report are discussed below:-

### **Strategic**

47. Risks of the signs being placed in inappropriate places.

### **Financial**

48. The report contains details of costs of monitoring (£500 per site) which will need to be included within LTP or Ward Committee allocations for new VAS. There is a possibility of this being exceeded, but it is only considered a low risk.

49. Measured in terms of impact and likelihood, the risk score of all risks has been assessed as less than 16. This means that at this point the risks need only to be monitored as they do not provide a real threat to the achievement of the objectives of this report.

Risk Category	Impact	Likelihood	Score
Strategic	Medium (3)	Possible (3)	9
Financial	Low (2)	Possible (3)	6

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Report Approved  Date 30 September 2009

**Specialist Implications Officer(s)**

There are no specialist implications.

**Wards Affected**

All

**For further information please contact the authors of the report.**

**Background Papers:**

“Speed Management” – report presented to EMAP on 30 October 2006