



## Stratford Liberal Democrats Press Release 12<sup>th</sup> October 2009

### Lib Dem pressure forces release of secret report on Fire Service plans

After sustained pressure from the Liberal Democrats the County Council has released the management summary of a report by consultants Det Norske Veritas, presented to the Cabinet in July. The contents of the report, which contributed to the Conservative decision to move to public consultation on their fire review, had previously been kept secret.

Hazel Wright, District Councillor for Studley, where the fire station is under threat of closure, said, 'this whole exercise has been shrouded in secrecy by the Conservatives from the start. At public meetings we are constantly being told that responses to the consultation must be based on fact rather than emotion. But the public can only do this if they are given the facts in the first place'.

'Unfortunately the County Council has only agreed to release the management summary of the report and, as always, I suspect the devil lies in the detail of the report – which is still being kept secret. Residents are entitled to know what this report says and the Lib Dems will keep up the pressure to make the whole report available.'

#### **Notes:**

Attached: copy of Management Summary of report by consultants Det Norske Veritas.

#### **More information:**

Cllr Hazel Wright 01527 852899  
Cllr Peter Moorse 01789 269630

## **Det Norske Veritas Risk Review**

### **Management Summary**

#### **Aim**

This study provides an independent assessment of the risks of 8 improvement objectives proposed for the Warwickshire Fire and Rescue Service (WFRS). The scope of the work covers all risks to the organisation of WFRS, including impacts on life, property and the environment.

The improvement objectives are grouped as follows:

1. Duty system and resources
2. False alarm attendance policy

3. Smoke detector ownership
4. Hot fires training
5. Performance management
6. Flooding response
7. Road traffic collision unit
8. Small fires unit

## Approach

In this study, the impacts of the improvement objectives have been identified in qualitative terms. In order to be able to evaluate such diverse changes in a consistent way, the impacts have been quantified and expressed in monetary units, in order to show whether they are expected to produce a favourable balance of benefits and costs. Given the 3-week timescale of the present study, this quantification has relied on previous analyses and simplifying assumptions. The results are therefore approximate, and may need to be revised using the judgement of experienced WFRS managers.

## Results

The summary results of the review of each objective are as follows.

Improvement objective 1: Duty system and resources

	Positive effects	Negative effects
<b>Summary of change</b>	<ul style="list-style-type: none"> <li>• Proportion of whole-time firefighters increased from 60% to 77%.</li> <li>• A 5-watch system to provide extra resilience at whole-time stations.</li> <li>• A 10-person resilience shift to cover against absence elsewhere.</li> <li>• Day-crew hours adjusted to match peaks in demand.</li> </ul>	<ul style="list-style-type: none"> <li>• Overall number of firefighters reduced by 58.</li> <li>• Fire response from 12 stations instead of 19.</li> </ul>
<b>Effect on safety</b>	<ul style="list-style-type: none"> <li>• Continues to meet emergency response standards of 10 minutes (urban) and 20 minutes (rural).</li> <li>• 5th watch, resilience shift and adjusted day-crew hours will improve availability.</li> <li>• Whole-time firefighters are more extensively trained, less vulnerable to accidents, possibly more effective in firefighting and more quickly available when needed.</li> </ul>	<ul style="list-style-type: none"> <li>• 18 sec increase in average response times, and consequent increase in fire and road accident risks.</li> <li>• Requires careful management of change.</li> </ul>
<b>Cost-benefit balance</b>	<ul style="list-style-type: none"> <li>• Reduction in direct cost of £134,000 per year.</li> <li>• Net benefit of £70,000 per year.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in risk valued at £64,000 per year, but this is sensitive to response time estimates.</li> </ul>
<b>Other effects</b>	<ul style="list-style-type: none"> <li>• Provides personnel for small fires unit (objective 8).</li> </ul>	
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>• Reduction in cost outweighs the risk.</li> <li>• Provides resources for other objectives.</li> </ul>	

Improvement objective 2: False alarm attendance policy

	Positive effects	Negative effects
<b>Summary of change</b>	<ul style="list-style-type: none"> <li>Continued emergency response to automatic fire alarms at defined premises that are slow to evacuate (e.g. hospitals, care homes).</li> </ul>	<ul style="list-style-type: none"> <li>No attendance at other automatic fire alarms without human confirmation of a fire.</li> </ul>
<b>Effect on safety</b>	<ul style="list-style-type: none"> <li>Large reduction in callouts for false alarms, reducing wear &amp; tear, fuel consumption and road accident risk.</li> </ul>	<ul style="list-style-type: none"> <li>Slower response to fires detected automatically, and consequent increase in fire damage risks.</li> </ul>
<b>Cost-benefit balance</b>	<ul style="list-style-type: none"> <li>Reduction in false alarm callouts valued at £655,000 per year (including staff time).</li> <li>Net benefit of £643,000 per year</li> </ul>	<ul style="list-style-type: none"> <li>Small direct cost of £5,000 per year.</li> <li>Increase in risk valued at £7,000 per year, but this is sensitive to delay time.</li> </ul>
<b>Other effects</b>	<ul style="list-style-type: none"> <li>Provides time for fire prevention activity (objective 3), but is not essential for it.</li> <li>Reduces resources needs, but is not essential for objective 1.</li> </ul>	
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>Provides resources for other objectives.</li> <li>Reduction in risk outweighs the cost.</li> </ul>	<ul style="list-style-type: none"> <li>Contrasts with recent cost-benefit study for CLG.</li> </ul>

Improvement objective 3: Smoke detector ownership

	Positive effects	Negative effects
<b>Summary of change</b>	<ul style="list-style-type: none"> <li>10-fold increase in home fire safety checks (HFSCs) and smoke detector (SD) delivery.</li> <li>HFSCs would be by operational firefighters (approx 20%) and voluntary organisations (80%).</li> </ul>	
<b>Effect on safety</b>	<ul style="list-style-type: none"> <li>HFSCs promote fire prevention and so reduce dwelling fires.</li> <li>SDs provide early warning of dwelling fires, and so reduce human and damage risk.</li> </ul>	<ul style="list-style-type: none"> <li>HFSCs distract firefighters from fire mitigation.</li> <li>HFSCs might be less effective if done in bulk contractors.</li> <li>Fire damage will increase at the end of SD battery life.</li> </ul>
<b>Cost-benefit balance</b>	<ul style="list-style-type: none"> <li>Reduction in risk valued at £830,000 per year, but this is sensitive to how risk accumulates over several years.</li> <li>Net benefit of £389,000 per year.</li> </ul>	<ul style="list-style-type: none"> <li>Direct cost is £441,000 per year (SDs).</li> </ul>
<b>Other effects</b>	<ul style="list-style-type: none"> <li>Reduces resources needs, but is not essential for objective 1.</li> </ul>	
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>Reduction in risk outweighs the cost.</li> <li>Consistent with other cost-benefit studies.</li> </ul>	<ul style="list-style-type: none"> <li>Other solutions (e.g. 1 SD per HFSC) may be more cost-effective.</li> </ul>

#### Improvement objective 4: Hot fires training

	Positive effects	Negative effects
<b>Summary of change</b>	<ul style="list-style-type: none"> <li>2-fold increase in hot fire training for all crew.</li> <li>Incident command system (ICS) training integrated with hot fire training.</li> </ul>	
<b>Effect on safety</b>	<ul style="list-style-type: none"> <li>Training makes firefighters less vulnerable to accidents and more effective in fighting hot fires.</li> </ul>	<ul style="list-style-type: none"> <li>Training takes time and reduces availability.</li> </ul>
<b>Cost-benefit balance</b>	<ul style="list-style-type: none"> <li>Reduction in risk valued at £865,000 per year, but this is sensitive to the assumed benefit of training.</li> <li>Net benefit of £585,000 per year.</li> </ul>	<ul style="list-style-type: none"> <li>Direct cost is £280,000 per year.</li> </ul>
<b>Other effects</b>	<ul style="list-style-type: none"> <li>Appropriate response to Atherstone accident.</li> </ul>	
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>Reduction in risk outweighs the cost.</li> </ul>	

#### Improvement objective 5: Performance management

	Positive effects	Negative effects
<b>Summary of change</b>	<ul style="list-style-type: none"> <li>Management attention to motivate personnel to avoid unnecessary sickness absence.</li> <li>Temporary promotions to be time-limited to encourage stability in the organisation.</li> <li>Updated fitness facilities and instructors at fire stations.</li> </ul>	
<b>Effect on safety</b>	<ul style="list-style-type: none"> <li>Health and fitness improves firefighting performance.</li> <li>Reduced sickness absence improves availability</li> </ul>	<ul style="list-style-type: none"> <li>Fitness activities may distract firefighters from fire prevention.</li> </ul>
<b>Cost-benefit balance</b>	<ul style="list-style-type: none"> <li>Reduction in risk is uncertain.</li> <li>Net benefit is unknown at present.</li> </ul>	<ul style="list-style-type: none"> <li>Direct cost is uncertain.</li> </ul>
<b>Other effects</b>	<ul style="list-style-type: none"> <li>Response to sickness absence being below FRS average.</li> </ul>	
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>Evaluation is not possible at present.</li> </ul>	

#### Improvement objective 6: Flooding response

	Positive effects	Negative effects
<b>Summary of change</b>	<ul style="list-style-type: none"> <li>A second boat unit, covering the south of the county.</li> </ul>	
<b>Effect on safety</b>	<ul style="list-style-type: none"> <li>Faster response to flooding events in south Warwickshire.</li> <li>Extra resources for major flooding events in north Warwickshire.</li> <li>Reduced risks to firefighters from improvised rescues while waiting for the existing boat to arrive.</li> </ul>	<ul style="list-style-type: none"> <li>Training takes time and reduces availability.</li> </ul>
<b>Cost-benefit balance</b>	<ul style="list-style-type: none"> <li>Reduction in risk valued at £50,000 per year, but this is sensitive to the assumed benefit of the boat unit.</li> <li>Net benefit of £41,200 per year.</li> </ul>	<ul style="list-style-type: none"> <li>Direct cost is £8,800 per year.</li> </ul>
<b>Other effects</b>	<ul style="list-style-type: none"> <li>Pro-active response to growth in flood risks.</li> </ul>	
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>Reduction in risk outweighs the cost.</li> </ul>	

Improvement objective 7: Road traffic collision unit

	Positive effects	Negative effects
<b>Summary of change</b>	<ul style="list-style-type: none"> <li>• A dedicated road traffic collision (RTC) unit.</li> <li>• It will carry cutting and heavy lift equipment.</li> <li>• It will be deployed at satellite locations where road accidents are common</li> <li>• It will attend complicated accidents in addition to conventional pumps.</li> </ul>	
<b>Effect on safety</b>	<ul style="list-style-type: none"> <li>• Faster extrication of casualties from road accidents.</li> <li>• Figurehead for road accident prevention.</li> </ul>	
<b>Cost-benefit balance</b>	<ul style="list-style-type: none"> <li>• Reduction in risk valued at £196,000 per year, but this is sensitive to the assumed effect of the RTC unit.</li> <li>• Net benefit of at least £191,000 per year.</li> </ul>	<ul style="list-style-type: none"> <li>• Small direct cost of £5000 due to converting existing vehicle.</li> </ul>
<b>Other effects</b>		
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>• Reduction in risk outweighs the cost.</li> <li>• Large benefit suggests other RTC measures may be effective.</li> </ul>	

Improvement objective 8: Small fires unit

	Positive effects	Negative effects
<b>Summary of change</b>	<ul style="list-style-type: none"> <li>• Two dedicated small fires units (SFU), consisting of 4x4 targeted response vehicles.</li> <li>• They will have a crew totalling 20 whole-time firefighters.</li> <li>• They will be located near the main areas for small fires.</li> <li>• They will also undertake community-based fire prevention.</li> </ul>	
<b>Effect on safety</b>	<ul style="list-style-type: none"> <li>• Prevention of small fires through community-based work.</li> <li>• Reduced response cost for small fires.</li> <li>• Improved performance in extinguishing small fires.</li> </ul>	
<b>Cost-benefit balance</b>	<ul style="list-style-type: none"> <li>• Reduction in risk valued at £86,000 per year.</li> <li>• Reduction in response cost estimated as £198,000, including time released for HFSCs.</li> <li>• Net benefit of £284,000 per year.</li> </ul>	<ul style="list-style-type: none"> <li>• Negligible direct cost due to using existing vehicles.</li> </ul>
<b>Other effects</b>		<ul style="list-style-type: none"> <li>• Depends on duty system (objective 1).</li> </ul>
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>• Reduction in risk and cost.</li> </ul>	

## Comparison of Improvements

Figure 1 compares the direct costs for these improvements. Direct costs include salaries and purchases of equipment and services. Negative values indicate cost savings. Objective 1 is cost-saving, and objectives 3 and 4 involve major investments. The combined cost is £606,000 per year, but most of this is due to objectives 3 and 4.

**Figure 1 Direct Costs**

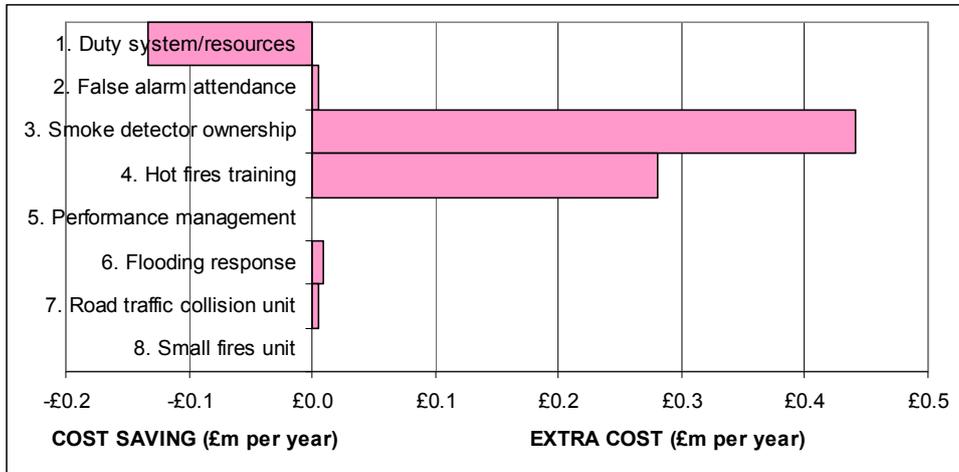


Figure 2 compares the estimated safety impacts, expressed in monetary units. These include valuations of risks to life and property, and time savings. Negative values indicate extra risk. Objective 1 causes a slight increase in risk. All the others are predicted to reduce risk (especially objectives 3 and 4). The combined benefit is valued at £2.8 million per year.

**Figure 2 Value of Safety Impacts**

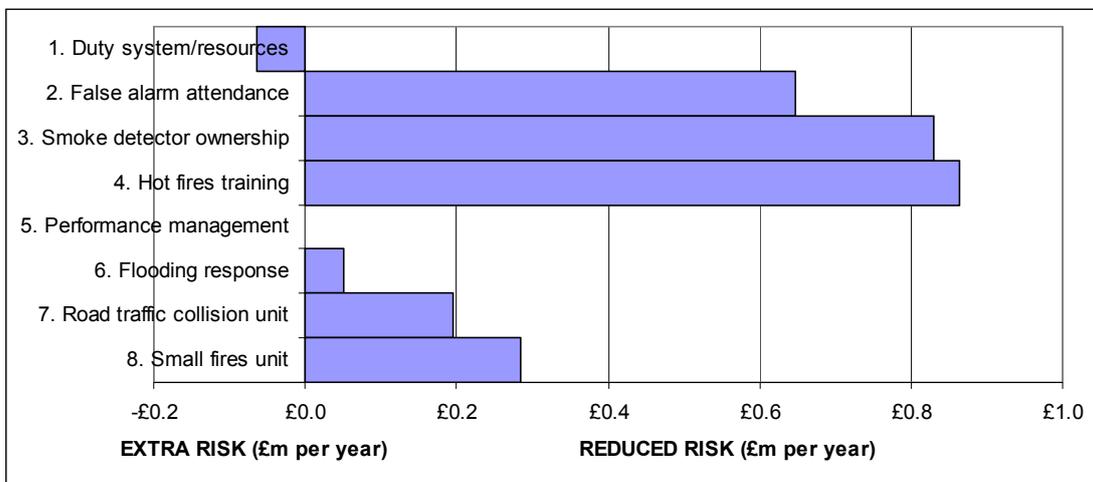
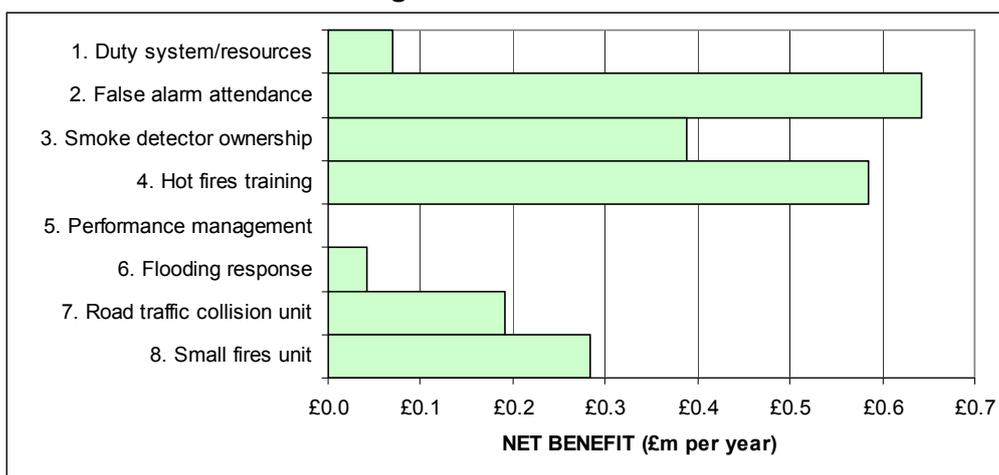


Figure 3 combines the costs and safety impacts to show the overall net benefit for each improvement objective, expressed in monetary units. Negative values indicate that costs and extra risks outweigh any risk reduction. All the objectives are predicted to be beneficial (especially objectives 2, 3 and 4). The combined net benefit is £2.2 million per year.

**Figure 3 Net Benefits**



## Conclusions

This study concludes that the overall package of improvement objectives will be beneficial. Two of the objectives (objectives 3 and 4) imply a large investment in smoke detectors and training, but they also make a large reduction in risk and are beneficial overall. The other objectives involve either cost reductions or small cost increases, and also reduce risk. Objective 1 is different because it increases risk, but this is outweighed by the significant cost saving.

The package as a whole is predicted to make a significant reduction in the risk from fires and road accidents. Hence the work supports the overall package of improvement options.

## Uncertainties

This work is uncertain because it has been completed over a short timescale, and uses preliminary assumptions that have had only preliminary validation by WFRS. It also makes use of national calculations of the effects of response time, whereas local models would be preferable. At present it is based on WFRS fire statistics from 2006/07, fire damage costs from 2004. Updates to use more recent data would be expected to have a small impact because fire frequencies have reduced but costs have increased.

## Recommendations

The study also suggests that there may be opportunities to make further improvements for WFRS:

- Some of the improvement objectives are more cost-effective than others. This may be because of the assumptions made in the present analysis. However, there may be potential to optimise the improvements to make them more cost-effective
- A more comprehensive study of the risks associated with fire and rescue in Warwickshire would provide the basis for a fully risk-based set of improvements, which might be able to increase the benefits from the current objectives.
- The same risk study would provide the basis for a comparison between WFRS and other areas. This might indicate areas for efficiency savings, both in Warwickshire and elsewhere.
- The potential amalgamation of the FRS in Warwickshire and neighbouring counties could also be addressed in the same way. However, quantifying this type of change would require more detailed modelling of economies of scale.

It is therefore recommended that WFRS continue to use the quantitative approach from the present study to prioritise and evaluate changes as they are planned in the future.