

Public Accounts Committee  
Value for Money Motorway and Trunk Road Investment  
MTRI 19 – South Wales Fire and Rescue Service

Public Account Committee  
National Assembly for Wales  
Cardiff Bay  
CF99 1NA

Date: 19 March 2015

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Dear Sir/Madam

**RESPONSE TO INQUIRY INTO VALUE FOR MONEY OF MOTORWAY AND TRUNK ROAD INVESTMENT**

Thank you for the opportunity to provide views to the above Inquiry.

In providing views for this Inquiry it is stressed that comments are provided in a constructive fashion.

The Service has considered the issues in relation to managing road traffic accidents, details of guidance for Fire Authorities in Wales when dealing with road traffic accidents, closure times, co-ordination of the response with highway authorities and other emergency services and the use of screens.

The relevant response is attached for consideration.

We have no further comments on the terms of reference as set out in the inquiry. Although, we would recommend appropriate turnaround times for responses considering the plethora of consultations taking place for organisations at this moment in time.

Yours faithfully

Paul Mason  
Station Manager – Staff Officer (ELT)  
for **CHIEF FIRE OFFICER**

## **SOUTH WALES FIRE AND RESCUE SERVICE**

### **RESPONSE TO INQUIRY INTO VALUE FOR MONEY OF MOTORWAY AND TRUNK ROAD INVESTMENT**

In relation to your latest correspondence dated 11 March 2015, and your inquiry into Value for Money of Motorway and Trunk Road Investment, please find the following observations from South Wales Fire and Rescue Services Perspective in relation to managing road traffic accidents, details of guidance for Fire Authorities in Wales when dealing with road traffic accidents, closure times, co-ordination of the response with highway authorities and other emergency services and the use of screens. We have no further comments on the terms of reference as set out in the inquiry.

Fire and Rescue Services (FRSs) are considered to be the principal rescue service for Road Traffic Collisions throughout the UK; this would be replicated within Wales.

There are a number of legal and policy documents which set out the role and duties of Fire and Rescue Authorities (FRAs) and FRSs in relation to road traffic collisions.

#### ***Legal and Policy considerations***

The Fire and Rescue Services Act 2004 sets out the statutory obligations of all FRAs to provide effective emergency response, including a requirement for them to make provision for undertaking rescues from road traffic accidents, and protecting people from harm in the same.

The Programme for Government sets out how the Welsh Government intends to deliver on a renewed set of ambitions that will result in a fairer, safer and more prosperous Wales. The document includes references to the role of the FRSs in helping to achieve these aims, both in terms of their community fire safety activities, and in the arena of road safety. In particular the Programme identifies key vulnerable groups, and talks about the need for the Services to “*Target high-risk road users (motor cyclists, young drivers and vulnerable road users) through a combination of measures including education, engineering and enforcement.*”

**Fire and Rescue Service Act 2004 - section 8 as stated below:**

**8 Road traffic accidents**

(1) A fire and rescue authority must make provision for the purpose of—

- (a) rescuing people in the event of road traffic accidents in its area;
- (b) protecting people from serious harm, to the extent that it considers it reasonable to do so, in the event of road traffic accidents in its area.

(2) In making provision under subsection (1) a fire and rescue authority must in particular—

- (a) secure the provision of the personnel, services and equipment necessary efficiently to meet all normal requirements;
- (b) secure the provision of training for personnel;
- (c) make arrangements for dealing with calls for help and for summoning personnel;
- (d) make arrangements for obtaining information needed for the purpose mentioned in subsection (1);
- (e) make arrangements for ensuring that reasonable steps are taken to prevent or limit damage to property resulting from action taken for the purpose mentioned in subsection (1).

**In addition, Supplementary Powers in the event of emergency include:**

**44. Powers of fire-fighters etc in an emergency etc**

(1) An employee of a fire and rescue authority who is authorised in writing by the authority for the purposes of this section may do anything he reasonably believes to be necessary—

- (a) if he reasonably believes a fire to have broken out or to be about to break out, for the purpose of extinguishing or preventing the fire or protecting life or property;
- (b) if he reasonably believes a road traffic accident to have occurred, for the purpose of rescuing people or protecting them from serious harm;
- (c) if he reasonably believes an emergency of another kind to have occurred, for the purpose of discharging any function conferred on the fire and rescue authority in relation to the emergency;
- (d) for the purpose of preventing or limiting damage to property resulting from action taken as mentioned in paragraph (a), (b) or (c).

(2) In particular, an employee of a fire and rescue authority who is authorised as mentioned in subsection (1) may under that subsection—

- (a) enter premises or a place, by force if necessary, without the consent of the owner or occupier of the premises or place;
- (b) move or break into a vehicle without the consent of its owner;
- (c) close a highway;
- (d) stop and regulate traffic;

## **Command and Control of Incidents**

In view of the above legislation Fire and Rescue Services would have primacy for any rescues and or extrications of casualties from a Road Traffic Collision (RTC). Police would retain overall responsibility for Road Traffic Law & Investigation and the Ambulance responsible for primary casualty care at such incidents.

The Incident Command System (ICS) constitutes the doctrine of the Fire and Rescue Services in the context of operational incident management, leadership and the functional control processes that flow from it.

The ICS is the recognised “nationwide safe and effective system for managing operations”. It represents the key elements of effective incident command in three functional areas:

- Organisation on the Incident ground
- Incident Risk Management
- Command Competence

Cordons are employed as an effective method of controlling resources and maintaining safety on the incident ground. The incident commander must consider the safety of fire-fighters, the public, members of other emergency services and voluntary agencies attending. However, it must be noted that overall responsibility for the health and safety of personnel working within the inner cordon remains with the individual agencies. Such agencies should ensure that personnel arriving at the scene have appropriate PPE and are adequately trained and briefed for the work they are to undertake within the cordon.

Fire and Rescue Services are trained and equipped to manage gateways into the inner cordon, therefore it is important that local planning and exercising is conducted to ensure misunderstandings about roles and responsibilities do not occur during an incident.

This has been enhanced further through the Joint Emergency Services Interoperability Principles (JESIP) training. The focus for JESIP is primarily the operational response in the initial stages of a major or complex incident of:

- Police Services
- Fire and Rescue Services
- Ambulance Services

The clarity that JESIP aims to bring to the operational commanders at the scene will make the integration of the activities of wider responders, easier and more beneficial for all.

The JESIP Joint Doctrine aims to define what the operational and tactical commanders from police, fire and ambulance will do on the scene during the initial stages of a major or complex incident. All relevant staff within police, fire and ambulance services will receive appropriate training in the JESIP Joint Doctrine.

At local level, Local Resilience Forums (LRFs) co-ordinate the planning and multi-agency response to emergencies and civil unrest. These forums are made up of representation from the local authority, local police, fire and ambulance services as well as other Category 1 & 2 responders and government agencies.

Training and co-ordination at local level is paramount to ensure any changes through motorway and trunk road investment enable improved service delivery of emergency response and traffic management functions. Hence co-ordination of response with highway authorities and other emergency services is the key to success in the most expedient way. With this in mind it is prudent Highway Agency personnel and other responders are kept up to date with any changes to existing protocols and engage in frequent dialog with other emergency responders to ensure protocols and procedures remain fit for purpose. A further consideration here would be to enhance the communication protocols between such responders to accurately pinpoint the location of any emergency incident, this will ensure responders are provided with precise information as to the incident location, which eliminates confusion, expedites any extrication necessary and reduces the resulting congestion.

The 'golden hour' is a key facet with any extrication of a casualty. This is the time deemed critical in releasing a casualty from an emergency incident. This refers to a time period lasting for one hour following traumatic injury being sustained by a casualty or medical emergency, during which there is the highest likelihood that prompt medical treatment will prevent death<sup>4</sup>. It is well established that the patient's chances of survival are greatest if they receive care within a short period of time after a severe injury.

## **Closure Times and use of Screens**

It is appreciated that transport is at the heart of life in Wales, with other services dependent on it in one way shape or form, with transport being an essential part of the thriving economy and on the day to day activities of people's lives. Efficient and effective road networks are crucial for the economy in Wales. However, during any incident involving a RTC on the road networks the priority for emergency services is the Health, Safety & Welfare of its personnel. Such safe systems of work maintain compliance with the H&S at Work Act, Management of Health and Safety etc to name but a few. Therefore, whilst additional pressures are put on the Police and Highways agencies to re-open motorway lanes and other trunk roads, the safety of emergency workers is vital.

Communication is key to ensuring a smooth transition before, during and following incidents so that appropriate diversionary opportunities can be scoped, implemented and or considered.

Every frontline appliance within South Wales Fire and Rescue Service area is equipped with state of the art cutting and extrication equipment. In addition to the equipment on each frontline appliance, six specialist Rescue tenders are strategically located throughout the arterial routes providing enhanced RTC capabilities.

Every firefighter is trained to high standard in RTC extrication to deal with the diverse demands such an incident may place onto the service and or individual.

We would agree that the trunk road networks in Wales provides critical connectivity to many communities and an efficient and effective motorway and trunk road network has an important role to play in supporting the Welsh economy enabling access across Wales as a whole. Although, the pinch points throughout South Wales on the M4 the Motorway and Trunk Roads are a concern to the emergency services and sometimes hinder the smooth transition of traffic throughout Wales following an incident and at times of peak heavy traffic flow. We supported the introduction of a variable speed limit system in 2011 of the M4 between Junctions 24 and 28 to improve traffic flow in the short term. We note that the system has resulted in a reduction in accidents and welcome this trend. Therefore, any further improvements to the network following the inquiry into the value for money of motorway and trunk road investment would be readily supported.

South Wales Fire and Rescue Service is considered a high performing organization in many facets including Command and Control, RTC training and many other arenas'. Such is the extent of our knowledge, understanding, skills and expertise that we train other Fire and Rescue Services, both in the UK and International and facilitate training for other emergency services on a regular basis. We have worldwide accolade in extrication with our teams winning both national and International competitions.

The use of screens we believe to be subjective in that we have not trialed any such equipment and have not been privy to any reports on the benefits of such. Our experience has shown that extrications are completed as expediently as possible depending on numerous factors such a number of vehicles involved, scope and size of the incident, numbers of persons involved, complexity of incident, daytime / night time, weather conditions etc. Therefore, we would question would screens actually stop other motorist viewing the scene of operations, how big would they need to be, who would carry these screens and how long would they take to arrive at the scene of operations?

## Road Safety Education

The Welsh Government (WG) is committed to improving road safety and reducing the number of people killed and seriously injured on trunk roads in South Wales and South Wales Fire and Rescue Service (SWFRS) have a key part to play in supporting WG to achieve this.

In making the people of Wales safer from the dangers of fire and other emergencies, there are three main strands to be addressed – Prevention, Protection and Response. Clearly, preventing fires and other emergencies provides the greatest benefit to the public. Where fires and emergencies occur, their impact should be reduced wherever possible.

As a service SWFRS are cognisant of the high costs involved in re-engineering roads and as such a specialist road safety team guides and manages SWFRS road safety initiatives across the 10 Unitary Authorities served.

Considerable improvement in road safety has been witnessed in recent years and the Welsh Government's recent *Road Safety Framework for Wales* sets out the challenging vision of:

**“A continued reduction in the number of people killed and seriously injured on Welsh roads, with the ultimate aspiration of no fatalities”.**

The same document proposes the following targets, compared to the average figures for Wales between 2004 and 2008:

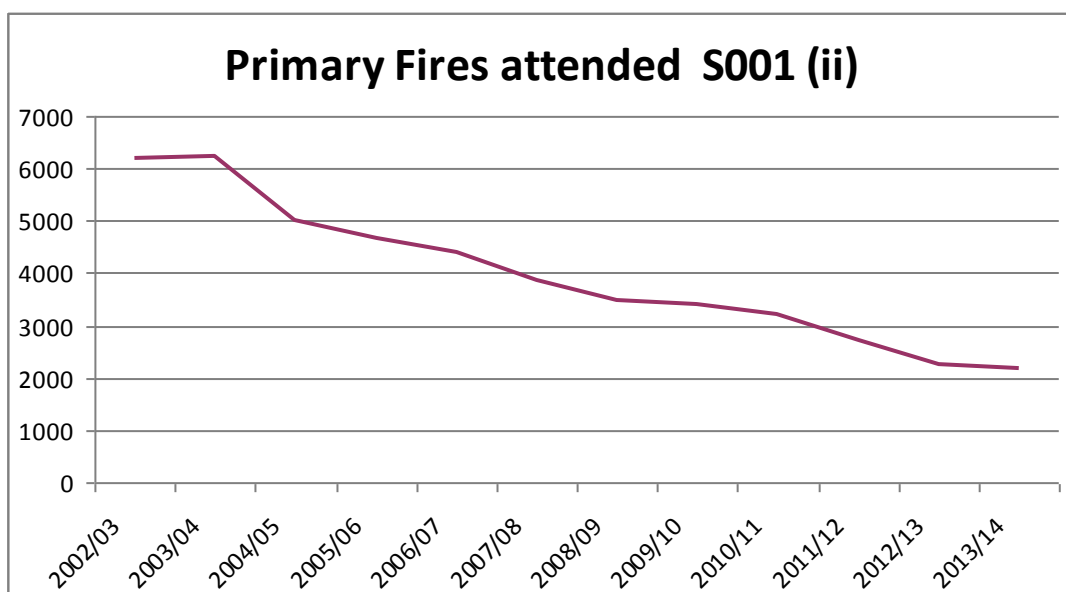
- **A 40% reduction** in the total number of people killed and seriously injured (KSI) on Welsh roads by 2020, meaning 562 fewer killed and seriously injured casualties;
- **A 25% reduction** in the number of motorcyclists killed and seriously injured on Welsh roads by 2020, meaning 64 fewer motorcyclist killed and seriously injured casualties;

- **A 40% reduction** in the number of young people (aged 16-24) killed and seriously injured on Welsh roads by 2020, meaning 139 fewer young people killed and seriously injured casualties.

## The Challenge

In order to meet the challenges faced across the principality the 3 Welsh FRS road safety teams have written and are about to publish a *Welsh Fire and Rescue Services Road Safety Strategy 2015 onwards* which sets out how the Welsh FRSs will work to support the achievement of the challenging targets laid out in the *Road Safety Framework for Wales*.

South Wales FRS have seen impressive reductions in the number of fires attended over the last 10 years mainly due to innovative education initiatives both individually as a stand alone service and also by working in partnership with key organizations (see chart below).



The current position and future vision in order to contribute to the reduction of Road Traffic Collisions of all types across South Wales is to replicate this success and work closely with partner agencies in order to achieve the common goals and targets as set out in the *Road Safety Framework for Wales*.

The 3 E's of Road Safety (Education, Enforcement and Engineering) are pivotal to SWFRS work to achieve these targets from firstly an Education perspective by targeting those members of our communities who are most vulnerable on our roads by working in partnership with the Welsh Government and other stakeholders, delivering meaningful road safety initiatives that will make a positive difference and reduce the number of incidents.



SWFRS are key partners in a number of Enforcement initiatives led by our Police partners where SWFRS premises are used as focal points for initiatives.

For further information on these enforcement initiatives and all SWFRS road safety initiatives please see the attached link;

<http://fshqsp:30000/English/yoursafety/Domino/Pages/Home.aspx>

With regard to Engineering solutions SWFRS are key partners in providing statistical data and evidence to a number of all Wales Collaborative Road Safety Groups such as The Welsh Roads Policing Regional Strategic Group with partners Road Safety Wales, ROSPA, DVLA, Brake, WAST, GOSAFE, All 4 Welsh Police Forces, WG (Policy and Road Engineering departments). SWFRS are also standing members of the All Wales Strategic Road Safety Group which includes regional representation from all 22 Unitary Authorities, WLGA, and all the aforementioned partners from the Roads Policing Strategic Group.

By providing data on the number of instances (and severity therein) attended across the many arterial trunk roads throughout the South Wales area we as a Service have contributed evidence which shows that not only do accidents on these major roads cost lives and cause immeasurable human suffering, but they also have a significant economic impact on communities, costing the Welsh/South Wales economy millions of pounds per year in attendance of various agencies, recovery and investigation, in legal proceedings and insurance claims, in repairs to roads and carriageways, in delays to other road users and in lost economic output. The Department for Transport recently estimated that the value to society in preventing fatal road casualties in Great Britain was over £1.6m per death.

Examples of the major “pinch points” on trunk roads within the SWFRS area are:

- The A465 Heads of the Valleys road
- The A470
- The A4232 and Butetown Tunnels
- The M4 corridor and in particular the Brynglas Tunnels

Any incidents on these roads leading to delays/road closures hamper SWFRS response capabilities severely, not only to the incident in question but to any other incidents across the service area such as any type of fire or any of the many special service calls attended by SWFRS due to the impact on the wider road network due to an incident on a major trunk road. This congestion not only impacts on SWFRS but also on any other emergency service attempting to reach an emergency incident.

As previously stated by working with Partner agencies across our service area we have been able to provide data with regard to incidents attended on these routes and also the severity of such incidents.

The ongoing engineering work currently taking place on the A465 has seen a reduction in RTC's attended and will no doubt see a reduction going forward due to the newly engineered solutions being implemented. However it should be noted that SWFRS are only one of many organisations who are contributing to achieving the challenging targets set out in the *Road Safety Framework for Wales*.

In order to best target Education initiatives SWFRS use MAST (Market Analysis Segmentation Tools) which is an online resource for road safety professionals. The unique system provides national collision data for in-depth analysis, and gives insight into the people involved. It accesses data for all road collisions and builds profiles of risk groups in specific areas. This means that resident risk and crash migration can be monitored in ways that were previously impossible. MAST is the first national online tool of its kind, and is helping SWFRS improve and maintain safety standards throughout and across our region. Used in conjunction with our own bespoke data (MAST captures all incidents that have occurred and some of these SWFRS may not have attended) SWFRS are able to provide an accurate reflection of incidents and in particular incident hot spots across South Wales that may require Engineered solutions alongside Education and Enforcement.