

JOINT RESILIENCE COMMITTEE – 7th November 2008

REPORT OF THE JOINT RESILIENCE UNIT

1. As the **Maritime and Coastguard Agency** have kindly hosted this meeting it would be appropriate to provide you with some background to the agency and their operations.

1.1. BACKGROUND

The Maritime and Coastguard Agency was formed in 1998 from the amalgamation of the Maritime Safety Agency (MSA) and HM Coastguard. It has its Headquarters in Southampton with a number of Coastguard and Survey offices around the country.

Wales forms part of the Wales and West of England Region which in Search and Rescue (SAR) terms stretches from the Mull of Galloway in Dumfries and Galloway around the entire western coastline to Lyme Regis on the Devon and Dorset border. The Region has a number of offices and Operational SAR Stations across the Region. There is a Head Office in Cardiff which houses the Regional Director, Regional Operations Manager Survey and Inspection, a Marine Office and the Registry of Shipping and Seamen.

1.2. SEARCH & RESCUE

There are three SAR Stations in Wales with Holyhead forming part of the North West area with Milford Haven and Swansea in the Wales and West area which stretches into Devon. All stations are designated as MRCCs in accordance with international maritime organisation rules.

Ministerial responsibility for the Maritime and Coastguard Agency rests with the Minister of State for Transport. The MCA is one of Department for Transport's Executive Agencies.

1.3. INFORMATION HOTLINE

The Swansea station hosts the Maritime and Coastguard Agency 24-hour Information line. Because of the additional roles it performs, it has an enhanced SAR complement of 27 people (a standard station has 22 people on the watch complement). In addition the premises house the Regional Operations Manager SAR, the Area Operations Manager SAR, the Rescue Co-ordination Centre Manager, the Regional Business Manager, and the Regional Business Unit.

1.4. **LOCAL RESILIENCE**

As the MCA region stretches from the South West coast of Scotland to the Devon and Dorset border the MCA is a member of 20 separate Local Resilience Forums. However, under the Civil Contingencies Act 2004 the MCA is a Category 1 responder and therefore has a statutory duty to co-operate in resilience work with all of these LRF's.

The MCA is a standing member of Joint Emergencies Services Group and works closely with the other emergency services and the military in taking forward a resilience agenda in Wales.

1.5. **ROLE**

The [Maritime and Coastguard Agency](#) (MCA) is an [executive agency](#) responsible throughout the UK for implementing the Government's maritime safety policy. That includes co-ordinating search and rescue at sea through Her Majesty's Coastguard, checking that ships meet UK and international safety rules and preventing coastal pollution.

Typical emergencies to which the Coastguard is summoned include:

- Sailboarders too exhausted to reach the shore
- Walkers and animals who slip from cliff paths
- Boats losing rudder control
- Crew stranded aboard a container ship battered by freak waves
- Medical emergencies
- Incidents involving oil rigs (such as fire)
- Suicide victims that have flung themselves from cliffs or bridges
- Missing adults and children around the cliffs or beach area

2. **Project Argus** was delivered to local businesses in Port Talbot on 24th September at the Princess Royal Theatre, Port Talbot. This event was facilitated by the South Wales Counter Terrorism Unit to raise awareness and preparedness on the consequences of a terrorist attack. More than 40 local businesses attended the event.

Project Argus – Night time Economy has been developed to deliver a similar exercise to Pubs, Clubs and Restaurants. The provisional date for this event is 3rd December 2008 at the Brangwyn Hall.

3. The reviewed COMAH Off-site Plan and aide memoir for **CALOR Gas**, Aberdulais has been published and will be reviewed again in three years time in line with the existing COMAH legislation. The Forward Action Plan, managed by the Joint Resilience Unit, has been signed off by the operator and stakeholders.

4. **The Neath Port Talbot/City & County of Swansea Resilience Partnership Risk Group** met on the 9th October 2008. More work is being done on risk assessments and the group will be in a position to issue the first risk register for the NPT/CCoS area by January 2009.
5. Invitations have been sent out to service providers within the two local authorities and partner organisations to attend an inaugural meeting of the new **NPT/CCoS Flood Group**. It is the intention to meet before the end of December 2008. Draft terms of reference and provisional agenda have been sent out with the invitation.

Welsh Water is one of the organisations that has been invited to attend the Flood Group.

One action arising from the previous JRC meeting was the issue of Welsh Water's involvement in local flooding issues and their apparent lack of engagement in dealing with the initial flood risk and more importantly, the often protracted recovery phase.

On the 3rd October, Welsh Water published a press release launching 'Green Space Wales' - an initiative to promote natural drainage to help the sewerage network cope better with climate change and increasing urbanisation to reduce incidents of sewer flooding. A copy of the press release is attached as **Annex 1**.

Annex 2 is the Surface Water Management Strategy developed by Welsh Water to address the problem. It will be proposed at the first Flood Group meeting that this strategy is used to help inform the development of local planning arrangements to prevent and/or manage the consequences.

6. **Exercise Sidetrack** has been developed to exercise the Directorate Emergency Response Plans for both NPT and CCoS.

All exercises have now been facilitated and reports and forward action plans have been written for each completed exercise.

Members are asked to note the content of this report.



03/10/2008

Welsh Water launches 'Green Space Wales'

Wales needs more natural drainage to reduce sewer flooding

Welsh Water is today launching 'Green Space Wales' - an initiative to promote natural drainage to help the sewerage network cope better with climate change and increasing urbanisation to reduce incidents of sewer flooding.

The company is engaging with partners throughout Wales to raise awareness of what can be done to reduce the risk of sewer flooding due to intense rain storms and the increasing amount of surface water run-off from roofs and paved areas.

The climate seems to be changing with more heavy rainfall falling on an increasingly developed urban landscape of roads, car parks, buildings and paved front gardens. With reduced green areas for drainage, rainfall is increasingly channelled into public sewers, sometimes overloading them and causing sewer flooding and pollution incidents.

Welsh Water managing director Nigel Annett said, "We have a very large investment programme to improve the wastewater network to reduce the risk of storm water flooding. But this is not a problem that can be solved by Welsh Water alone. The answer cannot lie in upsizing all our sewers, as this would have a severe impact on bills – costing around £10,000 per customer. It would also cause massive disruption for only temporary benefit. Pumping rainwater through our wastewater network also uses a lot of energy, and that is something that we would like to avoid to help reduce our carbon footprint.

"We plan to spend around £800m by 2015 on necessary improvements to our wastewater system, but this will need to be supported by a change in the way we create and manage the built environment. To put the scale of the issue into perspective, in London an area 22 times the size of Hyde Park has been paved over since 1945 – applying this rate to Cardiff alone means an area equivalent of 300 Millennium Stadium pitches has been paved over. That is, grassland and open areas that have been built on with a consequent huge increase in surface water run-off to the sewerage network. Our long-term objective is to have drainage systems in developed areas that, as far as practical, mimic natural drainage to green areas."

As part of the Green Space Wales initiative Welsh Water is linking with central and local government, planners, developers and other decision makers to seek support for legislative change and the adoption of sustainable drainage solutions for new housing and other developments. The company has taken a UK water industry lead by commissioning large-scale studies in Wales as part of its Surface Water Management Strategy.

Commenting on Welsh Water's strategy, Richard Ashley, professor of urban water at Sheffield University explains, "Welsh Water is visionary in tackling this issue and is approaching it in a different way to the rest of the UK water industry – perhaps because of their unique business model where they do not have shareholders to service. They realise that we can no longer do things the old way and are looking at how they can manage storm water where it lands on the surface."

Mr Annett continued, "To put it very simply, we need more green space in our urban areas so more rain water can be dealt with more effectively. As well as the technical approach to reducing surface water flows, legislative change to planning laws may also be needed. For example, we may need to factor sustainable urban drainage into plans for new developments. Change could also mean that householders would require planning permission before paving over their front gardens to create parking spaces, a requirement that came into effect in England on 1st Oct 2008. The surface water management strategy being developed will provide a long term vision as to how Welsh Water will deal with surface water flows for the next 25 years.

There will be a greater proportion of expenditure on preventative measures, rather than reacting to events. Reducing the amount of flow to the network will be by management of the system, so that it is not automatically chosen as the disposal route for surface water. We will strive to reduce the area connected to the system.

"Wales is a UK leader in tackling this major problem, and we are already working with the Welsh Assembly Government, the Environment Agency Wales, the Consumer Council for Water and the Welsh Local Government Association. Our goal is to raise awareness and engage on this issue, because the sooner we can take effective action to limit surface water run-off the better it will be over the long-term for people in our towns and cities. Keeping and creating green spaces is a first step to addressing this environmental problem," concluded Mr Annett.

Further information is available using the following links:

- [Surface Water Management Strategy](#) (PDF)
- [Green Space Wales](#) (Flash video)

- [Professor Richard Ashley](#) (Flash video)

Ends

Enquiries to the Welsh Water press office on 029 2055 6140

Notes to editors:

Professor Richard Ashley was a member of the group advising the UK Government during the preparation of the Pitt Report into increased flooding incidents in the UK.



Surface Water Management Strategy



Bio-retention area incorporated within traffic calming regime



Introduction

Surface water is the rainwater that runs from roofs, highways and paved areas into the public sewerage system. For a number of reasons, including more frequent severe storms and the growth of built-up areas, Welsh Water's sewer network has to deal with increasing flows of surface water. Occasionally, the capacity of the network is exceeded in some areas and results in incidents of sewage flooding of homes, gardens and roadways and can cause pollution incidents in streams and rivers.

Background

Welsh Water has developed a Surface Water Management Strategy to address the problem. It aims to raise awareness of the issue and enable engagement with interested bodies, in order to work together to deliver a solution. In rural areas a high proportion of water that falls as rain soaks into the ground, then seeps into streams and rivers and flows to the sea. However, in urbanised areas there is much less green and open space. Land in our villages, towns and cities has ever more houses and other buildings, tarmac roads and paths, paved patios and driveways. Natural drainage is therefore impeded. Rain falling on roofs and other hard-standing surfaces, runs down gutters and drainpipes and into the sewerage system. Increasing urbanisation (creep) causes increased flows, meaning urban sewers often have less capacity to cope with the severe rain storms that have become more frequent in recent years. This can result in flooding of people's homes and neighbourhoods, causing considerable distress.

In addition, surface water entering the sewers increases the amount of energy needed to pump it to the sewage works and to treat it, causing further environmental impact through higher carbon emissions.

Welsh Water is a large energy user and we wish to reduce our carbon footprint. Tackling the issue of surface water run off will therefore produce a dual environmental benefit, by protecting local environments and reducing carbon emissions.

Objectives

The problem of sewer flooding and pollution affects wide sections of society and involves various organisations. It is a problem that cannot be solved by Welsh Water alone, as the root causes need to be addressed. The company is determined to do all it can to reduce the risk of sewage flooding and pollution, and this requires working with others in a joint effort to reduce surface water flows in sewer systems that are 'combined' i.e. carrying both sewage and surface water.

The first step is to promote a greater understanding of the causes and consequences of surface water run off and how organisations and individuals can help to take preventative action. Digging up the streets to replace existing sewers with even larger ones is not the answer. It would be extremely disruptive, prohibitively expensive to customers, and would be unlikely to provide a sustainable long-term solution. Therefore, a number of alternative and innovative solutions are required. Welsh Water and other organisations in Wales are taking a leading role in addressing this problem, which affects the whole of the UK.

The long term objective is to have drainage systems in developed areas that, as far as practical, mimic the original greenfield situation. Thereby most surface water is returned to the ground or open water courses at the earliest opportunity.

Phase 1

Welsh Water has already commissioned two studies to initiate and implement the development of the strategy. Phase 1 has identified and categorised a range of initiatives that could achieve surface water flow reduction. This work was completed in March 2007 and broadly classified the initiatives as:

- ✓ Engagement
- ✓ Charging
- ✓ Legislative
- ✓ Technical

Phase 2

Phase 2 is being carried out during 2008 at a cost of £800,000. It will implement the recommendations of the Phase 1 report and identify additional areas for investigation and investment, to enable delivery of the long-term strategy. Through the application of sustainable urban drainage, the flow reduction strategy will aim to:

- ✓ Reduce predicted future flooding
- ✓ Reduce predicted future incidents of pollution
- ✓ Decrease energy costs
- ✓ Support conservation and recreational opportunities
- ✓ Counter impermeable area creep
- ✓ Be instrumental in minimising the impacts of climate change



2007 Summer flooding Hereford



Applying the principles of this strategy will ensure that the most sustainable solutions will be adopted. There will be a greater proportion of expenditure on preventative measures, rather than on reacting to events.

The initiatives being developed during Phase 2 of the Surface Water Management Strategy for implementation in the future are:

Engagement: The greatest potential for the success of the strategy is under the direct control of other parties. Therefore, effective engagement with them is essential to achieve significant flow reduction - to offset the adverse impact on the sewerage network of climate change and increasing urbanisation. Some of the audiences to be engaged are listed below:

WELSH ASSEMBLY GOVERNMENT (WAG)
CONSUMER COUNCIL FOR WATER (CCW)
ENVIRONMENT AGENCY WALES (EAW)
ASSET MANAGEMENT ALLIANCE (AMA)
DEVELOPERS / BUILDERS
PROFESSIONAL FORUMS
FRIENDS OF THE EARTH
LOCAL AUTHORITY
UK GOVERNMENT
SCHOOLS
PUBLIC
OFWAT

Charging: Welsh Water currently charges customers for surface water drainage as part of its sewerage services. If customers have their surface water drainage disconnected from the sewer they can benefit from a reduced tariff and lower bills.

The key issues are:

1. *Should tariffs be related to the amount of surface area drained?*
2. *Would amendments to the infrastructure charge stop new connections of surface water to the system?*
3. *Should surface water run-off from highways be part of the tariff?*

Legislative: The Surface Water Management Strategy fits well with Government Environment Strategy policies on sustainability and climate change. The intention of the Surface Water Strategy is therefore to explore the potential for any legal changes by the Welsh Assembly Government and UK Government that will facilitate a reduction in surface water flows.

The key issues are:

1. *The alternatives to the automatic right to connect surface water drains to the public sewerage system.*
2. *Whether householders should be allowed to continue to pave over their front gardens without planning permission.*
3. *Sewerage byelaws (similar to water byelaws) to influence and police private sewers, particularly regarding tackling infiltration and surface water misconnections.*
4. *The issues and barriers to take up of Sustainable Drainage Systems (SUDS), including options for ownership and adoption across the bodies involved in urban and land drainage.*
5. *Whether funding for surface water drainage should be changed to reflect the 'polluter pays' principle including highway drainage.*

Technical: This will include a review of previous flow reduction and infiltration schemes. Long-term flow monitoring will be explored to identify the benefits this approach can bring, and where it should be done. Rainwater harvesting equipment is to be tried at suitable company buildings and domestic properties.

A 'SUDS Showcase Site' is required, that is, a development where people can see, first hand, examples of available devices and systems. In addition, it is planned to identify a suitable sewerage catchment area where as many of these strategic initiatives as practical, can be deployed, and to prepare to implement the work during our five year spending programme from 2010 to 2015.

The surface water management initiatives depend on the implementation of the technical solutions. These have already been identified, but many are not in common use in this country. Therefore, an engagement process is required alongside these technical solutions in order to increase awareness about what is possible and the provision of assistance to anyone willing to take them up.

Bio-retention area used to divert surface water from highways





Flooded highway

Summary:

In order to implement successfully the principles of the Surface Water Management Strategy in Wales, it is considered imperative for Welsh Water to have the endorsement of influential bodies such as the Welsh Assembly Government, Environment Agency Wales, Consumer Council for Water, and the Welsh Local Government Association.

This should ensure that further engagement by Welsh Water with a wider group of audiences will have a greater effect in persuading others to be more supportive of a sustainable urban drainage strategy, and to allow an integrated approach for the delivery of an effective surface water management plan.

Unless there is a huge effort to reduce volumes of surface water entering sewers, and radical changes in the way that we manage run-off, it is very clear that the current problems of flooding, pollution, high power consumption and carbon output will continue to grow, fuelled in the future by climate change.

Reducing the amount of flow to the network will be by management of the system, so that it is not automatically chosen as the disposal route for surface water. At the same time, Welsh Water will strive to reduce the existing impermeable area connected to the system. This is considered the only way to secure a sustainable solution. Building ever bigger sewerage systems is not a realistic option. The solution lies in raising awareness of the issue, and bringing together the people and organisations who can work together to achieve a common objective.