



Greater Manchester (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford, Wigan), United Kingdom

Local progress report on the implementation of the 10 Essentials for Making Cities Resilient (2013-2014)

Mayor:	Lord Peter Smith
Name of focal point:	Kathryn Oldham
Organization:	Association of Greater Manchester Authorities, Greater Manchester, United Kingdom
Title/Position:	Head of Civil Contingencies & Resilience Unit
E-mail address:	k.oldham@manchester.gov.uk
Telephone:	01612345552

Reporting period:	2013-2014
Last updated on:	12 August 2014
Print date:	22 August 2014
Reporting language:	English

A Local HFA Monitor update published by PreventionWeb

<http://www.preventionweb.net/english/hyogo/progress/reports/>

Essential 1

Put in place organization and coordination to understand and reduce disaster risk, based on participation of citizen groups and civil society. Build local alliances. Ensure that all departments understand their role to disaster risk reduction and preparedness.

How well are local organizations (including local government) equipped with capacities (knowledge, experience, official mandate) for disaster risk reduction and climate change adaptation?

Level of Progress achieved: 5

Description of Progress & Achievements:

Greater Manchester (GM), is one of the largest metropolitan areas in the UK, consisting of 10 unitary authorities; Bury, Bolton, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan. To strengthen institutional coordination and build economic capacity, the ten authorities collaborate as the Association of Greater Manchester Authorities (AGMA).

The 10 authorities in GM were the first in the UK to develop a statutory combined authority in 2011. The governance arrangements have been developed in order to boost economic performance which will help to deliver a brighter future for GM and the north west of England. By 2020 the Manchester City Region will have pioneered a new model for sustainable economic growth based around a more connected, talented and greener City Region where the prosperity secured is enjoyed by the many and not the few.

Critical to delivering this is a need to adapt to a rapidly changing climate. The GM local authorities together with their partners have established a range of governance structures to continue to grow the capacity to adapt to the unavoidable effects of climate change. These include:

- Low Carbon Hub (including the Natural Capital Group)
- GM Ecology Unit
- Climate Change lead officers in each local authority
- Planning and Housing Commission
- GM Interim Health and Wellbeing Board
- An understanding of disaster risk reduction is also key to developing a sustainable urban environment and GM also has a number of governance arrangements to deliver resilience.

These include:

- GM Flood Risk and Water Management Board
- GM Local Resilience Forum
- Local Health Resilience Partnership

This puts GM in a strong position with access to knowledge and experience combined with an official mandate to deliver disaster risk reduction and climate change adaptation as captured in the sustainable community strategy for GM - Greater Manchester Strategy: Stronger Together.

To what extent do partnerships exist between communities, private sector and local authorities to reduce risk?

Level of Progress achieved: 4

Description of Progress & Achievements:

GM has a long history of working together with its communities where all of our residents are able to contribute to and benefit from sustained prosperity. This requires strong partnership working between the public, private and voluntary sectors integrating disaster risk reduction and climate change adaptation.

Examples of this include:

The GM Resilience Forum (GMRF)

With a remit to coordinate all civil contingencies activities across GM, GMRF has a wide membership including public sector, private sector and voluntary organisations. Public sector representation includes all 10 GM local authorities, Greater Manchester Police, Greater Manchester Fire & Rescue Service, North West Ambulance Service, NHS England, Public Health England, British Transport Police, Environment Agency, Transport for Greater Manchester, Highways Agency, Department for Communities and Local Government and the Military. The private sector is represented by Manchester Airport Group, United Utilities, Electricity North West and Network Rail. A wide range of voluntary sector agencies are involved in the work of the Forum. These include British Red Cross, RAYNET, RVS, Salvation Army and St John's Ambulance.

The Low Carbon Hub

The Low Carbon Hub is committed to preparing GM to adapt to the effects of climate change by supporting GM's collective 48% carbon reduction target by 2020 and to realising the economic opportunities associated with transition to a low carbon economy. To ensure effective delivery of the Hub's aims and objectives extensive

partnership arrangements are critical. Members of the Low Carbon Hub include the Environment Agency, local academic organisations, Manchester Airport Group, the Wildlife Trust, national media organisations, local authorities and local business leaders.

These examples illustrate the types of arrangements that GM has put in place to ensure that the partnerships and the work they commission are informed by a broad diversity of views, have a wide engagement and are proactive.

How much does the local government support vulnerable local communities (particularly women, elderly, infirmed, children) to actively participate in risk reduction decision-making, policy making, planning and implementation processes?

Level of Progress achieved: 4

Description of Progress & Achievements:

The UK's democratic process ensures that all local communities can participate in local decision making and policy development. In both climate change adaptation and disaster risk reduction, all GM local authorities and their partners make specific efforts to connect to particular local vulnerable communities. Examples include:

Greater Manchester Police hold local community engagement meetings to not only provide feedback to local communities but also provide a direct conduit for information to be shared that enables local issues, important to that community, to be dealt with.

The Rochdale Community Flood Pathfinder project is working with 2 communities at risk of flooding to promote preparedness and resilience. The project funded by the Flood Resilience Community Pathfinder scheme and launched by Department for Environment, Food and Rural Affairs (DEFRA) in 2012, includes outreach and engagement in order to target priority communities. The project aims to: create and support local flood groups; demonstrate how communities can reduce the levels of flood risk in measurable ways and give residents evidence about flood risk that can lead to local action to prepare for flooding.

Greater Manchester Fire and Rescue Service (GMFRS) is a significant stakeholder in the delivery of numerous risk reduction activities and in community engagement. This reflects legislative duties underpinned by the Fire and Rescue Services Act 2004 and the Fire and Rescue National Framework in which the UK government presents its priority actions to be undertaken by the fire service on an annual basis. This work is

informed by feedback from the public via organised consultation meetings.

Plans are also in development to strengthen public engagement, including that of vulnerable local communities, in future years. Proposals include consultation with youth forums in Bolton about humanitarian assistance plans and dialogue with local area committees in Stockport regarding flood plans.

To what extent does the local government participate in the national DRR planning?

Level of Progress achieved: 4

Description of Progress & Achievements:

GM, as one of the largest metropolitan areas in the UK and host to one of the UK's most important economies, is in regular dialogue with national government to shape and influence national policy and approaches. GM also regularly pilots and leads on climate change adaptation and disaster risk reduction approaches.

AGMA is an established mechanism for the 10 local authorities to operate in collaboration, offering a cohesive voice through which they can jointly influence national policy. In relation to climate change, the AGMA Low Carbon Hub coordinates existing governance and partnership structures to forge stronger relationships with appropriate government departments and their agencies whilst connecting to the wider GM network.

GMRF is part of the UK's disaster preparation structures and amongst its membership is the Department for Communities and Local Government which works alongside Cabinet Office to lead UK emergency planning and response. Through these partnerships, GM actively contributes to a wide range of national forums and think tanks supporting the development of national thinking and enabling knowledge to be exchanged between local agencies. For example, the GM local authorities and GM Fire & Rescue Service are represented on the Local Government Association Emergency Planning Advisory Group working with Government to reflect the interests of UK local authorities; the Chief Executive of Rochdale Council sits as part of SOLACE's (Society of Local Authority Chief Executives) civil contingencies group; and the GM local authorities are active participants in the Core Cities Emergency Planning Group which meets annually with Government to offer a perspective from the largest cities within the UK. The Chair of the GMRF is also the

resilience lead for the UK's Chief Fire Officers Association. GM representatives also sit on the UK's Business Continuity Institute which provides guidance on resilience within the business community.

Essential 2

Assign a budget for disaster risk reduction and provide incentives for homeowners, low-income families, communities, businesses and public sector to invest in reducing the risks they face.

How far does the local government have access to adequate financial resources to carry out risk reduction activities?

Level of Progress achieved: 4

Description of Progress & Achievements:

The UK's democratic process ensures that all local communities can participate in local decision making and policy development. In both climate change adaptation and disaster risk reduction, all GM local authorities and their partners make specific efforts to connect to particular local vulnerable communities.

Examples include:

Greater Manchester Police hold local community engagement meetings to not only provide feedback to local communities but also provide a direct conduit for information to be shared that enables local issues, important to that community, to be dealt with.

The Rochdale Community Flood Pathfinder project is working with 2 communities at risk of flooding to promote preparedness and resilience. The project funded by the Flood Resilience Community Pathfinder scheme and launched by Department for Environment, Food and Rural Affairs (DEFRA) in 2012, includes outreach and engagement in order to target priority communities. The project aims to: create and support local flood groups; demonstrate how communities can reduce the levels of flood risk in measurable ways and give residents evidence about flood risk that can lead to local action to prepare for flooding.

Greater Manchester Fire and Rescue Service (GMFRS) is a significant stakeholder in the delivery of numerous risk reduction activities and in community engagement. This reflects legislative duties underpinned by the Fire and Rescue Services Act 2004 and the Fire and Rescue National Framework in which the UK government presents its priority actions to be undertaken by the fire service on an annual basis. This work is informed by feedback from the public via organised consultation meetings.

Plans are also in development to strengthen public engagement, including that of

vulnerable local communities, in future years. Proposals include consultation with youth forums in Bolton about humanitarian assistance plans and dialogue with local area committees in Stockport regarding flood plans.

To what degree does the local government allocate sufficient financial resources to carry out DRR activities, including effective disaster response and recovery?

Level of Progress achieved: 4

Description of Progress & Achievements:

Organisations across GM invest directly in emergency planning services that work together in partnership to plan for effective disaster response and recovery. The GM Resilience Forum coordinates planning for disasters with 16 organisations contributing to a specific budget to fund partnership disaster risk reduction activities. The activities funded include: staffing to support effective partnership work; training of responders; exercising plans; warning and informing the public; investing in academic research to inform future practice; and investing in specific capabilities such as enhanced security measures for GM and command and control arrangements.

In addition, the ten local authorities in GM have invested in a shared civil contingencies service (Civil Contingencies & Resilience Unit - CCRU) that is co-located with Greater Manchester Police, and has provision for Greater Manchester Fire & Rescue Service, North West Ambulance Service and National Health Service England colleagues to work from the same location. This encourages and supports a shared understanding of risks, together with an integrated approach to planning, training and exercising that enables an effective response on the ground. This structure reports to and is held accountable by a range of Greater Manchester's governance structures, ensuring civil protection issues are considered alongside other agendas such as economic growth, social development and strategic planning decisions.

Greater Manchester Police and its partners have also invested in shared command suites that support all agencies in working together from the same geographical location in the event of an emergency. These facilities are regularly used for more local incidents, in addition to larger emergencies, so the processes and procedures are fully rehearsed and responders are familiar with the protocols involved in working together. These arrangements are in addition to the investment that all responders

make in staff and their capabilities to respond in the event of an emergency.

What is the scope of financial services (e.g. saving and credit schemes, macro and micro-insurance) available to vulnerable and marginalised households for pre- disaster times?

Level of Progress achieved: 4

Description of Progress & Achievements:

The UK operates a welfare state which offers support to vulnerable and marginalised households. Health services are offered through the National Health Service and the UK is host to a robust charitable sector. In addition the UK has an all-risks insurance market.

Greater Manchester's local authorities, together with their partners, lead a wide range of activities to support people in pre-disaster planning. For example, severe winter weather can be a significant challenge and the 10 local authorities in GM have developed a collective energy switching scheme that is designed to help people to work collaboratively to save money on their energy bills, thereby encouraging people to keep warm in winter and to reduce the number of additional deaths attributable to cold. Although all residents can sign up, the scheme targets those in fuel poverty and people who are not online and so cannot easily use price comparison sites.

Within GM, Credit Unions and financial co-operatives are available. These are not for profit organisations, with no external shareholders. They provide loans/savings services for all residents, including vulnerable and marginalised households. They promote thrift and encourage people to save together and lend to each other responsibly. Credit Unions have 1,000,000 members in Britain and cover all Greater Manchester. The government is supporting a national improvement and expansion programme. Credit Unions are tightly regulated and the only sector where loan interest rates are capped. They provide a competitive, safe and ethical alternative to high cost lenders. Typically loans are low value (less than £1000) with interest capped at 42.6% APR, compared to over 4,000% APR with commercial lenders.

To what extent are micro finance, cash aid, soft loans, lone guarantees etc available to affected households after disasters to

restart livelihoods?

Level of Progress achieved: 5

Description of Progress & Achievements:

In addition to the pre-disaster schemes outlined above there are also a number of different routes and sources of support available to assist affected households following an emergency. Local appeals may be created in the aftermath of an emergency to support those affected. These are normally facilitated and administered through the local authority, for example the Oldham Distress Fund or The Lord Mayors Emergency Appeal Fund

Other funding streams are available to bolster and support local appeals, providing additional financial assistance. For example, Forever Manchester is a community foundation which administers the GM Disaster Relief Trust to provide financial assistance to victims of disasters. Local Authorities can make applications to the trust to release funds in the event of a major incident. Examples of its application are the 1985 Manchester Airport Disaster, the 1996 IRA bombing in Manchester City Centre, along with grants to Salford (2010) and Oldham (2012) following gas explosions. The British Red Cross support fundraising activities as well as provide specialist advice. The British Red Cross works closely with GM organisations to ensure plans and support is in place if needed.

The Bellwin scheme is a national scheme offered by the UK government to provide emergency financial assistance to local authorities dealing with disasters. It can be activated where there is 'destruction or danger to life or property and as a result, local authority(s) incur expenditure on or in connection with the taking of immediate actions to safeguard life or property or to prevent suffering or severe inconvenience in the area among its inhabitants'. Bellwin is not an automatic entitlement; UK ministers will decide on a case-by-case basis whether to activate a scheme. However the scheme ensures local authorities will have the financial assistance available to undertake disaster relief efforts in their locality.

How well established are economic incentives for investing in disaster risk reduction for households and businesses (e.g. reduced insurance premiums for households, tax holidays for businesses)?

Level of Progress achieved: 4

Description of Progress & Achievements:

One of the core principles embedded across the UK is to create safe places, industries and communities that minimise the likelihood of disasters and therefore reduce the need for the individual households and businesses to make substantial investment in disaster risk reduction. Thus a range of activities are undertaken to ensure appropriate land use, good standards of building and infrastructure construction. These are in addition to planning an effective emergency response. Significant work is also undertaken with key sectors of the economy and with local businesses to encourage business continuity planning in the instance of emergencies. The aim is to promote a safe and secure environment within which residents can live and businesses can operate.

However, the UK Government is also increasingly exploring approaches to incentivising households and businesses to invest in disaster risk reduction. There is a long running scheme to support businesses by providing insurance against a terrorist attack, where commercial insurance is unavailable. More recently, in respect of flooding, the UK Government has put in place a scheme legislated through the Water Bill Act 2014 to provide a pooled approach to ensure availability of affordable household insurance against floods.

Across the 2013/14 winter the UK experienced significant flooding. The government provided £5,000 per household and business properties flooded during winter 2014 to ensure that repairs lead to a greater resilience against future floods. This builds on previous trial work to install property level resilience against some types of flooding and to build upon record levels of investment on major works to provide community-wide protection against flooding from rivers and the coast.

To what extent do local business associations, such as chambers of commerce and similar, support efforts of small enterprises for business continuity during and after disasters?

Level of Progress achieved: 4

Description of Progress & Achievements:

The private sector is a key partner in GM's civil contingencies arrangements. A few

examples of their work are given below:

The Manchester Business Continuity Forum supports businesses in preparing for disasters through business continuity planning. This aims to encourage activities to mitigate the effect of emergencies on businesses. The Forum operates an award winning buddy scheme whereby larger organisations with more established business continuity arrangements support smaller businesses to review the measures they have in place.

Through the Greater Manchester Crisis Purchasing Schemes agreements are in place with three national supermarket chains to support local emergency procurement using a deferred payment scheme. This enables local authorities to access a range of goods 24/7 to support those affected by disasters to promptly meet local need.

Business In The Community (BITC) is a UK charity working with businesses across a range of issues including resilience and recovery. BITC can convene a Business Emergency Recovery Group which can mobilize and coordinate the assistance of BITC member companies to offer assistance to help other businesses and local communities recover from a wide range of emergencies. Businesses may be able to offer help such as warehousing for stock, distribution of goods, temporary trading premises, office administration support and expert advice on recovering losses and starting trading again (e.g. insurance claims). BITC are active in GM and in the aftermath of civil unrest in August 2011, the BITC were actively involved in supporting recovery activities.

As a further example, United Utilities is a private sector company providing water and wastewater services across GM. United Utilities plan for the provision of emergency water supplies should the water distribution network be compromised due to any number of emergencies. These plans are rehearsed on a regular basis.

Essential 3

Maintain up-to-date data on hazards and vulnerabilities, prepare risk assessments and use these as the basis for urban development plans and decisions. Ensure that this information and the plans for your city's resilience are readily available to the public and fully discussed with them.

To what degree does the local government conducted thorough disaster risk assessments for key vulnerable development sectors in your local authority?

Level of Progress achieved: 5

Description of Progress & Achievements:

Under the Civil Contingencies Act 2004 both local authorities and other emergency responders are required to assess risks that may affect their local area. The UK risk assessment process has been in place since 2005 and the government has identified over 80 risks in 10 separate categories within the National Risk Register (NRR) that may affect the UK. Sixty-four of these are deemed to apply to GM and are regularly assessed by GMRF as part of the Community Risk Register (CRR). Local responders within the UK can also add locally identified risks to their registers and to date GM has identified three additional risks. Two risks relate to mass gatherings of people and the third relates to fires at waste transfer sites which will be assessed for the first time in the coming year.

With respect to climate change in particular, GM has a long record of working both at a GM (conurbation) and borough level to identify and map key risks associated with a changing climate. This includes consideration of the implications of these on particular vulnerable populations, services and infrastructure (including new development) and also includes commissioning academic research to provide a strong evidence base.

Such assessments include:

- GM Local Climate Impacts Profile
 - GM Strategic Flood Risk Assessment
 - GM Surface Water Management Plan
 - 2014 Integrated GM Assessment
 - Borough Flood Risk Strategies
 - Evidencing and spatially prioritising weather and climate risks in Greater Manchester
- Critically, any form of local or GM assessment is shared amongst all stakeholders and inevitably impacts on policy design and implementation.

To what extent are these risk assessments regularly updated, e.g. annually or on a bi-annual basis?

Level of Progress achieved: 5

Description of Progress & Achievements:

The various GM risk assessments that inform climate change adaptation and disaster risk reduction are conducted under different regulatory frameworks and via a variety of funding streams that in turn affect how frequently they are renewed and updated. For example the Borough Flood Risk Strategies will be reviewed on a 5 yearly basis or if the underlying risks change substantially.

With respect to the Community Risk Register (CRR), the Civil Contingencies Act 2004 requires risks to be assessed from time to time. Since 2005 Greater Manchester has adopted a rolling annual assessment of risks. In order to maximise the benefit from the process within available resources, from 2014 onwards GM CRR risk assessments will be reviewed on a minimum 4 yearly cycle with a trigger based system in place for more urgent reviews. An example of a trigger based review would be if there is a change to government guidance, a major incident that evolves understanding of a risk or major organisational changes amongst local responders that manage specific risks.

The understanding of risks and how they develop is informed by processes such as the Integrated Greater Manchester Assessment together with expert advice drawn from many partner agencies. Any small-medium scale incidents that occur in GM are reviewed to assess whether the impacts of the incident suggest that the risk assessments need to be amended.

How regularly does the local government communicate to the community, information on local hazard trends and risk reduction measures (e.g. using a Risk Communications Plan) including early warnings of likely hazard impact?

Level of Progress achieved: 4

Description of Progress & Achievements:

All local resilience forums are required to publish all or part of their risk assessment in the form of a Community Risk Register (CRR). The Greater Manchester Resilience Forum publishes an updated CRR on its website each time the CRR is reviewed. Work is underway to improve the quality of public risk communication to place greater emphasis on the top risks that affect our area and how the public can make themselves and their local communities more resilient during an emergency. In addition authorities across GM run a series of awareness events. These include but are not limited to:

- 'Get Ready for the Unexpected' handbook
- various local social media initiatives such as Twitter
- GM Prepared website
- the annual Wigan Resilience Week
- Trafford provide an Emergency Services Show in Trafford.
- Individual responders also run public information campaigns to focus on specific risks that they manage. GM Fire and Rescue Service are a lead agency involved in the region and at the local level for promoting risk reduction measures either through the range of 'Safe4' seasonal campaigns, or through community engagement initiatives such as home fire safety checks. Another example is the Environment Agency web based tool 'What's in your backyard' which enables people to search by postcode for maps identifying areas that are at risk of a range of environmental hazards such as flooding, pollution, landfill and former mining activity.

How well are local government risk assessments linked to, and supportive of, risk assessments from neighbouring local authorities and state or provincial government risk management plans?

Level of Progress achieved: 4

Description of Progress & Achievements:

Greater Manchester's local authorities conduct comprehensive risk assessments

within both the national framework and in partnership with other organisations that bring technical or geographic expertise to inform the process. The national risk assessment framework for civil contingencies ensures a consistency of approach across the UK that enables neighbouring areas to share information and to understand the wider risk landscape. In Greater Manchester civil contingencies risk assessments reflect the understanding that emergencies do not respect administrative boundaries and that due to the spatial characteristics of the conurbation the 10 boroughs are inter-dependent, sharing common consequences and a common risk profile.

Work with partners who respectably have a national and north west footprint, ensures technical expertise is drawn on to conduct risk assessments. For example, organisations such as the Environment Agency and United Utilities, support a detailed understanding of potential flooding events. Risks are assessed on the geographic footprint that is applicable to the risk and this may bring together partners from a number of neighbouring areas. For example, the risks posed by rivers tend to be explored on a catchment basis.

Examples of specific recent work to understand cross-border risks include work on wide area and reservoir flooding where the flow of water affects neighbouring counties, together with coastal flooding where Greater Manchester may be supporting the response through sheltering evacuees. Greater Manchester also participates in UK-wide exercises to rehearse plans and to deepen the shared understanding of risks such as pandemic influenza.

The UK statutory framework in areas such as land use planning and civil contingencies places statutory duties on a wide range of organisations to ensure that a common understanding of risks can be developed enabling informed, evidence-based decisions.

How well are disaster risk assessments incorporated into all relevant local development planning on a consistent basis?

Level of Progress achieved: 4

Description of Progress & Achievements:

The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied within the local authority planning process. Within the framework there is guidance provided on

infrastructure and disasters, specifically taking account of risks associated with flooding within the plan-making application process.

Using flood risk as an example, the NPPF requires that flood risk is managed in an effective and sustainable manner and where, as an exception, new development is necessary in flood risk areas, the policy aims is to make it safe without increasing flood risk elsewhere whilst and wherever possible reducing flood risk. This process is referred to as the Flood Risk Management Hierarchy.

The Sequential Test is a decision making tool designed to ensure that areas at little or no risk of flooding are developed in preference to areas of higher risk. The NPPF advises that 'the aim of the Sequential Test is to steer new development to areas with the lowest probability of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding'.

A Strategic Flood Risk Assessment (SFRA) should provide the basis for applying the sequential test. The SFRA provides an overview of all sources of flood risk within each local authority. This includes rivers, surface water, groundwater, large reservoirs, lakes and sewers. A Greater Manchester Strategic Flood Risk Assessment was completed in August 2008.

At the more local level individual, local authorities work in partnership to undertake a Level 1 and Level 2 Strategic Flood Risk Assessment to inform planning processes.

Essential 4

Invest in and maintain critical infrastructure that reduces risk, such as flood drainage, adjusted where needed to cope with climate change.

How far do land use policies and planning regulations for housing and development infrastructure take current and projected disaster risk (including climate related risks) into account?

Level of Progress achieved: 4

Housing	Yes
Communication	Yes
Transportation	Yes
Energy	Yes

Description of Progress & Achievements:

The 'Greater Manchester Strategy - Stronger Together' sets out broad objectives for the growth of GM. A range of partnerships are charged with taking these forwards. For example the Planning and Housing Commission leads on revitalising town centres, creating places and spaces that will nurture success, stimulating and reshaping the housing market, and crafting a plan for growth and infrastructure.

The objectives within the GM Strategy have been informed by a substantial evidence base. This includes the Integrated Greater Manchester Assessment and risk assessments such as the GM SFRA and GM Surface Water Management Plan. This evidence shapes GM's land use policies and planning regulations ensuring that GM effectively responds to the National Planning and Policy Framework (NPPF). The NPPF requires local development plans to take account of climate change adaptation when planning and permitting new development in areas of current and future flood risk together with the impacts of these developments on off-site flood risk. In addition there are general commitments to ensure new development is planned to avoid increasing vulnerability from climate change impacts as well as taking account climate change impacts on biodiversity and the water supply.

GM is committed to ensuring that disaster risks such as climate change are properly modelled and understood. As part of this commitment work has been undertaken by a number of partners to develop the academic research in the area and to establish how climate change impacts may directly affect GM. Examples of this work include the Eco Cities project which incorporates GrABS (Green and Blue Space Adaptation for Urban Areas and Eco Towns), the STAR tool (surface water run off) and the Sustainable Cities: Options for Responding to Climate Change Impacts and Outcomes (SCORCHIO) heatwave prediction model.

How adequately are critical public facilities and infrastructure located in high risk areas assessed for all hazard risks and safety?

Level of Progress achieved: 4

Description of Progress & Achievements:

The Infrastructure Resilience programme, led by the Civil Contingencies Secretariat (CCS), was established in March 2011 to enable public and private sector organisations to build the resilience of their infrastructure together with their supply and distribution systems to disruption from all risks hazards and threats as set out in the National Risk Assessment.

The CCS 'Keeping the country running' guide was drawn up in consultation with government departments and agencies, infrastructure owners and operators, trade and professional associations and regulators. It provides a model of resilience that does not depend on additional regulation or standard-setting, but shares best practice and advice to enable owners and operators of the UK's critical infrastructure to improve the security and resilience of their assets, with support from the regulators where relevant.

An example of this type of work is the Highways Agency's partnership with the Centre of Protection for National Infrastructure (CPNI) which continually reviews the critical location of the strategic road network and implements enhanced security and maintenance measures to reduce the risk of disruption.

In addition lead government departments sponsoring each infrastructure sector are required to produce sector resilience plans on an annual basis which include action plans to improve resilience where necessary.

How adequate are the measures that are being undertaken to protect critical public facilities and infrastructure from damage during disasters?

Level of Progress achieved: 4

Description of Progress & Achievements:

As mentioned in the previous section the sector resilience planning process provides the opportunity for Government, regulators and infrastructure owners to work together to produce a mix of resilience components. The components are proportionate to the risks identified in National Risk Assessment products and enable improved sharing of information, in keeping with legal and regulatory frameworks, industry standards, licence agreements and business models.

In addition most infrastructure sectors are subject to the UK Regulatory Framework. In order to get a licence to operate from regulators such as OFCOM and OFGEM infrastructure operators are required to provide a minimum level of protection to their assets to ensure they withstand damage during disasters.

To offer a specific example, one of the major providers of communications infrastructure is British Telecom (BT). BT has a robust business continuity management structure in place. It is a companywide process that is mandated and driven from BT Group in London. All lines of business are tasked with having business continuity plans in place with delivery and governance through BCOT (Business Continuity Operating Team) and BCGG (Business Continuity Governance Group) respectively.

All key processes and activities, IT systems, network equipment and reliance on contractors or third parties are recorded. Business impact analyses, risk assessments and recovery time objectives are also documented. Contingency plans for key business processes have been written and are subject to a testing and exercise programme. These plans address scenarios that may affect people (including planning for pandemics), buildings, IT Systems as well as the BT network.

BT has plans covering industrial action which are regularly tested and a comprehensive and robust incident management process which includes alerting and escalation tools and associated processes. This is regularly tested and includes testing of BT's fallback NMC (Network Management Centre).

Essential 5

Assess the safety of all schools and health facilities and upgrade these as necessary.

To what extent have local schools, hospitals and health facilities received special attention for "all hazard" risk assessments in your local authority?

Level of Progress achieved: 4

Schools	Yes
Hospitals/ health facilities	Yes

Description of Progress & Achievements:

All hospitals within GM are designated as category 1 responders and as such have statutory responsibilities under the Civil Contingencies Act legislation including conducting risk assessments, planning for emergencies and undertaking business continuity planning.

NHS England has provided a set of core standards for all NHS organisations to comply with in relation to emergency preparedness, resilience and response, which set out expectations in relation all hazard risk assessments. Teachers, employees and medical staff within school, hospital and health facilities are provided with locally based training as to the most appropriate action to be taken in the event of risk being identified or emergencies occurring. Locally based specialists conduct assessments on a regular basis to ensure compliance with regulations and to promote best practices. Some of the aforementioned facilities also form part of the planned response to an ongoing disaster or emergency as they will be utilised as reception points for evacuees, staging posts and / or rendezvous points for emergency services in the event of a disaster occurring. Relevant sites are identified and exercises conducted to assess risk and readiness and then plans are developed to provide the most appropriate response possible given the particular nature of a disaster/incident.

How safe are all main schools, hospitals and health facilities from

disasters so that they have the ability to remain operational during emergencies?

Level of Progress achieved: 4

Schools	Yes
Hospitals/ health facilities	Yes

Description of Progress & Achievements:

The partnerships in GM include representatives from the health services together with local authorities who have particular responsibilities in relation to schools. Information on the risks that may affect the conurbation is available to both health and educational establishments through the GM CRR. The health sector is also required to meet a set of core competencies established under the NHS emergency preparedness resilience and response programme. These include the requirement to undertake the business continuity plan.

As part of the civil contingencies arrangements within GM representatives from across the health sector come together within the Local Health Resilience Partnership (LHRP) to coordinate the health sector preparations for emergencies. The LHRP has a role in providing assurance that the NHS and its facilities have a high degree of readiness for disasters. With the LHRP being organised at a GM level, Health Economy Resilience Groups (HERGs) have been set up in each borough to encourage the health sector at a district level to work together to ensure disaster preparedness is given the appropriate priority. A number of health facilities go above and beyond the national standards for emergency preparedness resilience and response and so for example the Stockport NHS Foundation Trust has achieved ISO 22301:2012 (Business continuity management) accreditation.

Many of GM's local authorities offer support to schools to put BCP in place, examples of this include the resilience service offer to schools in Bury and web based information available to schools in Manchester.

Partners across GM also plan to support schools and health facilities should the need arise. An example of this is GMFRS's Community Assistance Plan. This recognises that in cold weather the demand on fire services is often low and fire fighters can be made available to help, for example, schools to clear snow.

To what degree do local government or other levels of government have special programs in place to regularly assess schools, hospitals and health facilities for maintenance, compliance with building codes, general safety, weather-related risks etc.?

Level of Progress achieved: 5

Schools	Yes
Hospitals/ health facilities	Yes

Description of Progress & Achievements:

An extensive programme of measures and procedures are in place to ensure that buildings that are utilised as schools, hospitals and health facilities are routinely subject to assessments and inspections. There is also a rolling program to ensure that new builds and existing buildings are made more carbon efficient by improving insulation and promoting the use of more energy efficient heating and lighting systems.

The inspections include compliance with health and safety legislation, building codes and the general safety and security of the relevant buildings and sites. Scheduled Inspections take place and processes are in place to respond to any reports of risk as and when they occur.

Various risk assessments are conducted in relation to schools support by training for school based staff. Specific issues include risks such as legionella and asbestos

In respect of school maintenance, detailed elemental condition surveys are undertaken every five years by the local authorities. As condition deficiencies are identified following surveys, or by schools reporting them, further intrusive surveys are undertaken and are included in the structural maintenance programmes .

Health and safety is promoted as being the responsibility of all who use the sites however there are legal obligations regarding employers to meet safety standards. Guidance and training are available to all site users from the Health and Safety Executive and employers respectively. The Health and Safety at Work Act 1974 as amended is enshrined in law placing statutory responsibilities on employers, organisations and in certain cases individuals.

How far are regular disaster preparedness drills undertaken in schools, hospitals and health facilities?

Level of Progress achieved: 4

Schools	Yes
Hospitals/ health facilities	Yes

Description of Progress & Achievements:

The Local Health Resilience Partnership (LHRP) has a strategy which is reviewed [annually or sooner depending on emerging threats and lessons from incidents] to ensure that the local health sector remains prepared for potential major incidents. The strategic approach is based on preparing the health sector for risks identified nationally or locally, incorporating the community risk register, and takes into account other relevant documents and information (such as the Joint Strategic Needs Assessments). This covers planning for responses to known and emerging threats and taking an all hazards approach which will aim to cover unknown or unanticipated threats.

Disaster preparedness drills are undertaken to differing degrees dependent on the facility in question and its primary operational purpose. Schools hold regular fire evacuation drills in order to ensure that the premises can be evacuated in an efficient and effective manner whilst accounting for all persons evacuated, especially where young children are in attendance. Schools also carry out their own emergency internal training sessions and are advised annually to revise and update business continuity, emergency and inclement weather plans.

Hospitals, department dependent, usually but not exclusively Accident and Emergency departments have a duty to conduct an annual table top disaster readiness exercise and a three yearly live exercise to ensure that sufficient facilities and resources are available in order to meet demand. These exercises also indicate the maximum efficient capacity of the individual units. Using the capacity data a joint approach can then be adopted where there is inter-operability between hospitals both locally and in surrounding areas.

The exercises that are conducted ensure that relevant partner agencies work together to provide the best service possible in any given circumstance.

Essential 6

Apply and enforce realistic, risk compliant building regulations and land use planning principles. Identify safe land for low-income citizens and develop upgrading of informal settlements, wherever feasible.

How well are risk-sensitive land use regulations and building codes, health and safety codes enforced across all development zones and building types?

Level of Progress achieved: 5

Description of Progress & Achievements:

To support risk reduction and risk preparation, both at national and local levels, wherever possible risk assessments are published and available to businesses and the public. Risk information is therefore shared widely, including with local planning authorities, to ensure local development plans and planning decisions are made on an informed basis.

Moreover, within the UK, the National Planning Policy Framework (NPPF) gives guidance to local councils in drawing up local plans and on making decisions on planning applications. The local plans are the basis on which council's make land use and building construction decisions. They include a wide range of considerations from the long-term vision for the future development of the borough through to an assessment of key issues including an understanding of risks that may impact on land use decisions. The local plans are evidence based documents drawing on the wide range of risk assessments available.

The NPPF includes guidance for consultation on planning applications before they are decided. This includes statutory consultation requirements that encompass organisations who can provide specialist technical advice to ensure the development is safe and that disaster risk reduction is taken into account. For example, the Coal Authority can advise on areas of coal working, the Environment Agency can advise on flood risk and the Health and Safety Executive advise on developments in the vicinity to major accident hazards. The adjoining local planning authority is also consulted where an application for a new development is likely to have an impact on a neighbouring area.

The NPPF ensures a rigorous approach is taken to the implementation of UK statute in development zones and in determining planning applications. The local authority, together with other appropriate parties, also undertakes enforcement action to ensure

compliance with the UK's regulatory regime.

How strong are existing regulations (e.g. land use plans, building codes etc) to support disaster risk reduction in your local authority?

Level of Progress achieved: 5

Description of Progress & Achievements:

The local authorities in GM work within the UK's comprehensive legislative framework. The majority of significant building work requires planning permission to which specific conditions may be attached that reflect the particular risk profile of an identified location. Planning permission and its conditions are enforceable through the local planning authority and building owners are, on occasion, asked to undertake remedial work to meet the planning permission requirements at their own cost or legal action may be taken against them.

The planning framework is supplemented by England's building regulations and associated codes of practice. The building regulations are designed to promote safe and sustainable building practices. Building regulations are enforced by the local authority. Approved inspectors work with the local authority building control service to check that the building regulations are complied with during the course of the building work. All local authorities have enforcement powers to require building work to be altered to comply with the regulations or alternatively fines can be applied following court action.

Essential 7

Ensure education programmes & training on disaster risk reduction are in place in schools and communities.

How regularly does the local government conduct awareness-building or education programs on DRR and disaster preparedness for local communities?

Level of Progress achieved: 5

Programs include cultural diversity issues	Yes
Programs are sensitive to gender perspectives	Yes

Description of Progress & Achievements:

The Greater Manchester Resilience Forum (GMRF) commissions and coordinates many of the community preparedness work streams in Greater Manchester. The following groups lead this work:

Risk Assessment Working Group meets on a regular basis and produces a community risk register which is a public facing document highlighting key risks and hazards affecting local communities

Warning and Informing Group which reviews use of social media to support communication with the public about risks and hazards.

Control of Major Accident Hazards Group (COMAH) meets twice a year ensuring that the requirement under the COMAH regulations that public information is produced for and communicated to those communities living within the identified risk area for a COMAH site is implemented.

Third Sector Group brings together a diverse range of voluntary sector organisations with an interest in or contribution to make to disaster response, to build strong relationships with community based groups and to encourage local resilience. In addition to these groups, work is undertaken both in partnership and by individual organisations to promote public risk awareness. This includes work at a national level such as campaigns to safeguard health in heatwaves together with local campaigns such as Mr Toastie which encourages people to take measures to keep warm in

winter.

To what extent does the local government provide training in risk reduction for local officials and community leaders?

Level of Progress achieved: 5

Description of Progress & Achievements:

The UK is home to the Emergency Planning College (EPC) which offers UK Government approved emergency planning, business continuity and crisis management training. The Greater Manchester Resilience Forum works in partnership with the EPC to offer a regular programme of training courses for local officials and responders across all organisations within the partnership. This includes training in relevant legislation and the UK's civil contingencies framework, together with strategic and tactical commander courses. Topic specific briefings are also arranged to supplement this training. Recent briefings have covered flood risk, pandemic influenza, public health risks and interoperability. In addition to this multi-agency training, each organisation offers courses to its own staff. Within GM's 10 local authorities this includes training for elected members and strategic, tactical and operational commanders.

GM also arranges a programme of multi and single agency exercises to enable emergency responders to rehearse their skills and to test plans. In preparation for the Olympics in 2012, GM organised its most comprehensive programme of exercises since the introduction of the Civil Contingencies Act in 2004, with over 30 exercises held. The exercises are designed to use credible scenarios to test command and control arrangements, specific capabilities that would be used in an emergency and the response to particular risks. Some exercises are run on a cross-border basis in order to ensure wide area emergencies would be effectively managed.

As described elsewhere, GM supports a number of experienced partnerships. These operate in the area of emergency response but also across many of the work streams that mitigate the impact of risks. Governance structures across GM encourage sharing of relevant technical expertise between these partnerships. Sharing of expertise enables officials and community leaders to have access to the appropriate knowledge and technical information in decision-making.

To what degree do local schools and colleges include courses, education or training in disaster risk reduction (including climate related risks) as part of the education curriculum?

Level of Progress achieved: 5

Description of Progress & Achievements:

Within the UK the schools national curriculum establishes common programmes of study and attainment targets for all subjects. Education about climate change is included, for example, in the science curriculum for 11- to 14-year-olds and in the geography programme of study. This factual knowledge and understanding is supplemented at a local level by other educational activities. For example, Manchester City Council is running The Manchester Carbon Literacy Project which aims to offer everyone that lives, works or studies in the city a day's worth of carbon literacy training.

Within GM's schools Metrolink provide rail and road safety events and the Environment Agency supports flood awareness campaigns. As a more detailed example of local school-based activities, the Greater Manchester Fire & Rescue Service (GMFRS) plays a leading role in delivering school and college based safety programmes. As part of these programmes, all schools are visited at least once a year with operational fire-fighters providing information about fire and water safety. One particular initiative is the 'crucial crew' programme which helps children who are about to move from primary to secondary school to develop life skills that will help to keep themselves and others safe. A Safe4 website promotes seasonal safety campaigns and enables schools to access educational materials to support classroom-based activities.

Disaster risk reduction and climate change are also part of higher education courses. Local authority civil contingencies practitioners have taught on public service courses at Loreto (Manchester) and Hopwood Hall (Rochdale) Colleges. Within GM both the University of Manchester and University of Salford deliver internationally recognised undergraduate and postgraduate courses in disaster risk reduction and offer specific expertise in the field, for example through the Centre for Disaster Resilience at the University of Salford and the Humanitarian and Conflict Response Institute at the University of Manchester.

How aware are citizens of evacuation plans or drills for evacuations when necessary?

Level of Progress achieved: 4

Description of Progress & Achievements:

Within Greater Manchester's major incident plans there are communication strategies that identify methodologies to inform and advise the public with regard to taking appropriate action in the event of an emergency. Area communications rooms are already in place as part of the arrangements for the daily business of deploying emergency services and will be utilised in any major incident. Local authority websites throughout the conurbation provide direction and information to the public about responding to emergencies, including evacuation.

Nationally there is work underway resulting from the 2010 Strategic Defence Review as to the feasibility of using Short Message Service 'SMS' (texting) to provide the public with information regarding disasters. Initial trials of the system were completed in early 2014 with recommendations for further trials to be performed.

The national television and radio network i.e. British Broadcasting Corporation (BBC) can be utilised to deliver messages in case of emergencies and the UK runs a scheme for trusted twitter accounts in order that the public know which organisations will issue reliable information in emergencies.

There are local arrangements in place at certain iconic sites that utilise social networks to inform the public regarding specific incidents. The purpose of this approach is to assist in directing people away from danger and towards places of safety. Electronic message boards are also available within GM and the Highways Agency have a network of message boards that can be centrally updated across the area's 85 miles of motorway network.

Within the UK, all businesses, schools and other public buildings regularly rehearse evacuation drills.

Essential 8

Protect ecosystems and natural buffers to mitigate floods, storm surges and other hazards to which your city may be vulnerable. Adapt to climate change by building on good risk reduction practices.

How well integrated are local government DRR policies, strategies and implementation plans with existing environmental development and natural resource management plans?

Level of Progress achieved: 4

Description of Progress & Achievements:

To ensure environmental considerations are given appropriate consideration in wider strategic decision making, the 10 local authorities in GM have also established the Greater Manchester Ecology Unit (GMEU) to provide specialist advice on biodiversity, nature conservation and wildlife issues and the contribution the environment can make to disaster risk reduction including issues such as flood and water management, urban cooling and air quality improvements. This expertise is nested firmly within the GM family and therefore has the potential to influence not only statutory land use and development but also disaster risk reduction planning and implementation where relevant.

The GMEU provides:

- Comments on the ecological impact of development proposals on behalf of local authority planning departments and provides advice on safeguarding wildlife on development sites
- Advice to other council departments and the general public on wildlife issues
- Specialist ecological advice for, and presentation of evidence at, public inquiries
- Input into the preparation of Local Development Frameworks and other strategic plans and strategies
- Helps and preparation to implement the GM Biodiversity Action Plan
- Advice on the management of local authority owned land, including the preparation of site management plans

- Training for local authority staff and others

To what degree does the local government support the restoration, protection and sustainable management of ecosystems services?

Level of Progress achieved: 5

Forests	Yes
Coastal zones	No
Wetlands	Yes
Water resources	Yes
River basins	Yes
Fisheries	No

Description of Progress & Achievements:

The ten local authorities of GM collaborate on an on-going basis to prepare and help implement cross-boundary strategic projects that support the restoration, protection and sustainable management of ecosystems. Examples include:

- The Greater Manchester Ecological Framework which was commissioned by the AGMA Chief Planning Officers Group to undertake research to develop a coherent ecological framework setting out mechanisms for expanding and linking areas of habitat thereby facilitating species movement and habitat repair at a GM scale. GMEU worked in partnership with the Urban Nature Group of the University of Salford, the University of Manchester and the Red Rose Forest, with support from the district authorities of GM, to progress the project.
-
- The Greater Manchester Green Infrastructure Framework which identifies priority areas of existing green infrastructure, the improvement of which will enhance the provision of a range of local ecosystem services and help to build resilience of natural systems.
-
- The Greater Manchester Biodiversity Action Plan which identifies priority habitats

and species for conservation in GM and proposes actions to facilitate species conservation and recovery.

- The Greater Manchester Wetland Nature Improvement Area which is a large cross-boundary ecosystem project that has been formally adopted by the Association of Greater Manchester Authorities. The Project is aimed at conserving and restoring wetland ecosystems in the west of Manchester, including improving their resilience to withstand and adapt.

How much do civil society organizations and citizens participate in the restoration, protection and sustainable management of ecosystems services?

Level of Progress achieved: 4

Description of Progress & Achievements:

The NCG has close working relationships with other key partnerships and groups across a range of sectors in GM and, in particular, the Local Enterprise Partnership. The NCG is chaired by the Chief Executive of the Wildlife Trust for Lancashire, Manchester and North Merseyside.

The NCG hosts a website to encourage public participation and raise awareness. The NCG encourages locally supported projects where citizens participate in the restoration, protection and sustainable management of ecosystems services.

GM Local Records Centre is a cross-boundary initiative to collect, collate and analyse species and habitats records and to build a central local database in Greater Manchester. This is used in the planning of ecosystem conservation measures by monitoring the changes in species distributions in response to climate change.

The 'Grey-to-Green' Project, managed by the Greater Manchester Ecology Unit, aims to significantly increase the number of citizens collecting species records by training and facilitating data collection by volunteers.

Community Forest, Groundwork and the Local Wildlife Trusts aim to facilitate the conservation and enhancement of ecosystems by facilitating work by citizens.

How much does the private sector participate in the implementation of environmental and ecosystems management plans in your local authority?

Level of Progress achieved: 4

Description of Progress & Achievements:

A significant number of private sector organisations support the development and implementation of environmental and ecosystem management plans in GM.

For example, United Utilities (UU) have protecting and enhancing natural resources such as rivers, lakes and some of the most beautiful countryside in the country as part of their core objectives. UU are investing in renewable energy generation from waste water treatment works using gas from the treatment process in combined heat and power engines. This helps to reduce harmful emissions and stem climate change.

UU review the operation and maintenance of their sites to help to support rare species and habitats, for example, the sustainable catchment management programme (SCaMP) ensures catchments and their wildlife are well managed, protecting water supplies and restoring land to its natural state. SCaMP is a good example of working in partnership with organisations to achieve environmental goals and share knowledge and experience. Developed in association with the Royal Society for Protection of Birds (RSPB), SCaMP applies an integrated approach to catchment management across all UU water catchment land allowing moorland habitat to become more resilient to long term climate change.

A second example of private sector participation in environmental management planning is EcoCities, an initiative led by the University of Manchester and funded by Bruntwood. The project focuses on the response of urban areas to the impacts of climate change, looking particularly at how cities can adapt to the challenges and opportunities that a changing climate presents. EcoCities has provided GM with its first blueprint for an integrated climate change adaptation strategy based on leading scientific research, extensive stakeholder engagement and best practice. Its strategic document 'Four Degrees of Preparation' was launched at the Adapting the City conference on 14 May 2012 and is used to inform decision-making in GM.

Essential 9

Install early warning systems and emergency management capacities in your city and hold regular public preparedness drills.

To what degree do local institutions have access to financial reserves to support effective disaster response and early recovery?

Level of Progress achieved: 4

Description of Progress & Achievements:

Organisations across GM invest directly in emergency planning services that work together in partnership to plan for effective disaster response and recovery. The GM Resilience Forum coordinates planning for disasters with 16 organisations contributing to a specific budget to fund partnership disaster risk reduction activities. The activities funded include: staffing to support effective partnership work; training of responders; exercising plans; warning and informing the public; investing in academic research to inform future practice; and investing in specific capabilities such as enhanced security measures for GM and command and control arrangements.

In addition, the ten local authorities in GM have invested in a shared civil contingencies service (Civil Contingencies & Resilience Unit - CCRU) that is co-located with Greater Manchester Police, and has provision for Greater Manchester Fire & Rescue Service, North West Ambulance Service and National Health Service England colleagues to work from the same location. This encourages and supports a shared understanding of risks, together with an integrated approach to planning, training and exercising that enables an effective response on the ground. This structure reports to and is held accountable by a range of Greater Manchester's governance structures, ensuring civil protection issues are considered alongside other agendas such as economic growth, social development and strategic planning decisions.

Greater Manchester Police and its partners have also invested in shared command suites that support all agencies in working together from the same geographical location in the event of an emergency. These facilities are regularly used for more local incidents, in addition to larger emergencies, so the processes and procedures are fully rehearsed and responders are familiar with the protocols involved in working together. These arrangements are in addition to the investment that all responders make in staff and their capabilities to respond in the event of an emergency.

To what extent are early warning centres established, adequately staffed (or on-call personnel) and well resourced (power back ups, equipment redundancy etc) at all times?

Level of Progress achieved: 5

Description of Progress & Achievements:

There are a significant number of well resourced early warning and cascade systems in place across the UK which include;

- Flood Forecasting Centre – a joint initiative between the Environment Agency and the Met Office to provide timely forecasts of flooding
- Met Office National Severe Weather Service – provides early warnings of severe weather such as high winds, fog and snow
- Floodline Warnings Direct – provides early warning of river flooding to the public
- Extreme Rainfall Alert – provides warning of potential urban surface water flooding
- RIMNET – Radiation Incident Monitoring Network - a nationally agreed system to cascade radiation alerts around the UK to ensure appropriate information is shared and action taken
- Heat Health Watch System – operates from the 1st June to 15th September to alert health and social care providers to potential heatwaves.
- Cold Weather Alert Service – offers alerts for low temperatures, snow and ice to emergency responders
- Public Health Central Alerting System – provides early warning of emerging infectious diseases
- North West Influenza Bulletin – monitoring for primary care services to offer timely information on influenza infection levels
- Public Health England North West Intestinal Disease Bulletin – monitoring for primary care services on gastrointestinal infections disease rates
- Global Disaster Alert and Coordination Systems – alerting for a wide variety of natural disasters

Data from these systems flows into the local emergency response organisations to

inform their preparations in case of emergency. A number of multi- agency alert protocols then enable data to be shared between, local responders and appropriate organisations to be activated if required.

How much do warning systems allow for adequate community participation?

Level of Progress achieved: 4

Description of Progress & Achievements:

In addition to national alerting mechanisms, a number of more local, targeted systems have been developed. For example:

- The GM Prepared website provides public information and identifies social media links and website addresses for all emergency responders, the Environment Agency, met office and all local authorities. Also, published on the website is the GM Resilience handbook 'Life's not always predictable - Get ready for the unexpected' which offers a range of warning systems available for communities to be aware of and to engage with.

The Environment Agency operates an early warning system called Floodline Warnings Direct (FWD) which provides free messages to the public to give early warning of river flooding. Messages are delivered through automated telephone message, SMS, email and fax.

A number of COMAH (Control of Major Accident Hazards Regulations) industrial sites are based in the GM region. As per the legislative requirements they are required to establish a public information zones, (PIZ) informing local residents within a specific risk area what to do in the event of an incident and to provide warning sirens.

To what extent does the local government have an emergency operations centre (EOC) and/or an emergency communication system?

Level of Progress achieved: 5

Description of Progress & Achievements:

There are a number of single-agency and multi agency emergency operations centres (EOC) available throughout GM. The main EOC's are strategically located to ensure that maximum resilience is available in secure locations (i.e. Police facilities). Many of the EOC's have the capability to have live stream CCTV routed to them and, in GM's multi-agency EOC's, this can include live footage from the National Police Air Support (NPAS). In time of emergencies those in attendance within the multi-agency EOC will include representatives from Category 1 & 2 responders along with any other relevant representatives who are in a position to support the decision making process. The management system adopted to deal with a major incidents is the nationally approved gold (strategic), silver (tactical), bronze (operational) command system (GSB).

Gold and silver EOC's tend to be remotely located away from the scene of a disaster where possible. Bronze commanders are deployed near to the scene of the incident in order to deal with ongoing operational matters and report back to silver control who will provide appropriate resources and deal with tactical issues to assist the bronze commanders. Gold level commanders maintain a strategic overview of the emergency response and are the primary point of liaison with UK governmental structures.

To support robust communication in an emergency response, GM has developed a telecommunications plan which is underpinned by a range of technical communications options that facilitate a layered fallback UK approach. Emergency communication systems used include Terrestrial Trunked Radio (TETRA) which allows securely encrypted contact between emergency services and is linked and monitored by silver control. Plans are also in place through the UK's Mobile Telephone Privileged Access Scheme to maintain access to the mobile networks for emergency responders should the networks become overloaded.

How regularly are training drills and rehearsal carried out with the participation of relevant government, non-governmental, local leaders and volunteers?

Level of Progress achieved: 5

Description of Progress & Achievements:

The Greater Manchester Resilience Forum commissions a robust training programme that is open to emergency responders across GM. This programme offers responders the opportunity to train in a multi-agency environment that compliments the training offered within their own organisation. Much of the programme is delivered in partnership with the UK's leading provider of civil contingencies training, the Emergency Planning College.

Across the GM area single and multi-agency exercises are also regularly conducted in order to prepare for dealing with large scale incidents or disasters. These include exercises run at a GM spatial footprint in addition to multi-agency exercises that test a borough response and that are offered to all districts within GM.

The exercises bring together stakeholders from a range of organisations and can include local leaders, community representatives and/or volunteers depending on the theme of the exercise. The exercise themes are varied in content and focus on relevant potential risks identified within the local area. This method of exercising in partnership ensures that decision makers and practitioners become familiar with their own and their partners' roles and responsibilities in overcome potential obstacles prior to real life emergencies occurring. The exercises are designed to test a wide range of capabilities and are used to validate plans which are then updated to reflect the lessons identified during the exercise.

The Joint Emergency Services Interoperability Programme (JESIP) was launched in 2012 and aims to improve the way the Police, Fire and Ambulance services work together when responding to major incidents. The programme is ensuring that blue light services are trained to work together effectively at all levels of command in response to complex incidents so that as many lives as possible can be saved. This programme is being rolled out across the GM area at this time.

How available are key resources for effective response, such as emergency supplies, emergency shelters, identified evacuation routes and contingency plans at all times?

Level of Progress achieved: 5

Stockpiles of relief supplies	Yes
Emergency shelters	Yes
Safe evacuation routes identified	Yes

Contingency plan or community disaster preparedness plan for all major hazards	Yes
--------------------------------------------------------------------------------	-----

Description of Progress & Achievements:

Stockpiles of emergency relief supplies are catered in a two tier manner. A small amount of supplies are stockpiled within certain areas of GM for smaller scale emergencies. In the event of a large scale emergency a crisis purchasing scheme is in place with three major national supermarket chains. The scheme provides the facility for emergency supplies of any stock item to be acquired for use by responders, without the need for a cash payment at the time of purchase. This ensures that a large stock of fresh items is available without the need to stock and replenish an emergency store.

Emergency shelters are identified based on the requirements of a particular disaster and also the length of time to be occupied across all boroughs and assessed for suitability.

The Greater Manchester Strategic Evacuation Plan provides the strategic framework for evacuation. A Manchester City Centre Evacuation Plan has also been developed as a toolkit for tactical commanders managing an evacuation from the City Centre. This plan is being rolled out to other towns enabling a consistent approach to be adopted. The evacuation routes will usually be subject to a dynamic risk assessment and are incident dependant . All preplanned incidents such as mass gatherings and major sporting events have evacuation routes identified as part of the planning process.

GM has a comprehensive suite of emergency response and business continuity plans in place for reducing, controlling or mitigating the effects of emergencies, whilst laying down protocols for the response to a major incident. The response plans are based on the CRR, generic risks, site specific risks or generic capabilities. To ensure responders can work together effectively and do not have to access multiple plans in an incident, the core agreed principles for responding are set out in the GM Generic Response Plan.

Essential 10

After any disaster, ensure that the needs of the survivors are placed at the centre of reconstruction with support for them and their community organizations to design and help implement responses, including rebuilding homes and livelihoods.

How much access does the local government have to resources and expertise to assist victims of psycho-social (psychological, emotional) impacts of disasters?

Level of Progress achieved: 5

Description of Progress & Achievements:

Within the UK comprehensive mental health and psychological support services are provided through the National Health Service. In any emergency senior representatives from the NHS are critical partners within command structures in both the response and the recovery phases of an emergency. Similarly, local authorities bring expertise in both public health and social care, together with leadership in community engagement. Such multi-agency participation in the command structures ensures that the humanitarian aspects of any response, including health and welfare issues, are amongst the key priorities in the response and/or recovery strategy.

Within the UK victims can access psycho-social support through normal day-to-day service channels. However, Greater Manchester also has plans for establishing humanitarian assistance centres if required. Based on UK national guidance and the experience of responding to 7/7, humanitarian assistance centres can offer a single point of access to a wide range of services to assist survivors and the bereaved. In addition to public agencies, voluntary sector organisations are core partners in offering appropriate victim-centred services.

As an example of the services available through the third sector, the British Red Cross offers psychosocial support through its CALMER framework which is designed to respond to the multidimensional psychosocial needs of individuals and communities. The British Red Cross can offer trained and skilled people to work alongside victims to assist with psycho-social impacts of disasters. Recognising the contribution the voluntary sector can make to an integrated humanitarian response, the Greater Manchester Resilience Forum works with a range of third sector organisations to ensure pre-disaster understanding of the capabilities that can be deployed to assist the bereaved and survivors of major disasters. Strong links are also in place with the

How well are disaster risk reduction measures integrated into post-disaster recovery and rehabilitation activities (i.e. build back better, livelihoods rehabilitation)?

Level of Progress achieved: 4

Description of Progress & Achievements:

Within the UK the principles of debriefing incidents to ensure that the lessons identified from emergencies can be captured and shared is well established. Both single-agency and inter-agency debriefing processes are well practiced. These processes are very useful to local planners since areas tend to have a diverse risk profile and limited exposure to emergencies, therefore sharing the outcomes of incident evaluation processes between responders enables other areas to prepare for similar events.

One example at a national level that has shaped local activity is the Pitt Review. Sir Michael Pitt was asked by the UK Government to conduct a thorough and independent review of a flooding emergency that took place in 2007 with recommendations as to what might be done differently. The review presented a total of 92 recommendations. The Flood and Water Management Act 2010 responded to many of these recommendations to deliver better, more comprehensive management of flood risk for people, homes and businesses, helping to safeguard communities. Under the Act each of the 10 local authorities in GM became a Lead Local Flood Authority with specific responsibilities in relation to flood risk.

A second example of incorporating disaster risk reduction measures into future activities is in relation to pandemic influenza. The UK's Influenza Pandemic Preparedness Strategy takes into account the experience and lessons learned in the H1N1 (2009) influenza pandemic as well as the latest scientific evidence. This has then been used to inform pandemic influenza planning in GM which also incorporates the lessons identified at a local level in 2009. This enables arrangements for an influenza pandemic to include measures that have been shown to work well thus strengthening plans where processes and procedures could be improved. This plan will be tested this autumn (2014) as part of a national exercise.

To what degree does the Contingency Plan (or similar plan) include an outline strategy for post disaster recovery and reconstruction, including needs assessments and livelihoods rehabilitation?

Level of Progress achieved: 5

Description of Progress & Achievements:

As part of the UK's civil protection framework, non-statutory guidance 'Emergency Response and Recovery' has been issued by the Cabinet Office to establish good practice across the UK based on lessons identified from responding to and recovering from emergencies both in the UK and internationally. This has been supplemented by the National Recovery Guidance which is regularly updated with new information. The National Recovery Guidance includes a series of case studies written by organisations including in GM that are willing to share their experiences, their learning and the lessons identified in order to support other responders in working with communities to recover from an emergency.

Based on the national guidance, GM has developed specific recovery guidance that puts communities at the heart of the recovery process. The guidance recommends establishing structures to start planning for recovery and for longer-term issues within the first 24 hours of an emergency occurring. Although command and control structures will be established to manage the immediate response to an emergency, a multi-agency Recovery Coordinating Group is designed to start a strategic appraisal of the issues that will be important in the recovery phase and to commence planning to address the longer-term needs of affected communities. These may include health and welfare issues; environment and infrastructure reconstruction and business and economic recovery.

The GM Strategic Recovery Guidance was recently used in a gas explosion affecting the community of Shaw (2012). This included drawing on a set of key principles for undertaking recovery, establishing suitable inter-agency management structures, having clear roles and responsibilities for the various agencies engaged in the recovery processes and managing the transition between the response and recovery phases of the incident.