



# CLASP

Climate Change  
Local Area  
Support  
Programme

# Adaptation Resource Pack

Step-by-step guidance for  
Local Authorities with case studies  
from around the North West of England.

**Accelerator Pack – Embedding Climate  
Change Adaptation into LA Processes**



[www.clasp-nw.info](http://www.clasp-nw.info)

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This pack is designed to help Local Authorities to tackle climate change adaptation. Some have already made good progress and are ready to work on risk assessment of service areas so should start reading this Accelerator pack. Other Local Authorities have just started work on adaptation and should read the **Getting Started on Climate Change Adaptation** first.

## Accelerator Pack – Embedding Climate Change Adaptation into LA Processes

### Brief Description

Our climate is expected to change throughout this century, and Local Authorities, together with the emergency services, are at the front line in dealing with the short term effects of severe weather, as well helping communities and businesses to recover afterwards. Research has shown that the most vulnerable members of society are most likely to be badly affected by severe weather, with knock-on effects in health, mental health, education and employment.

Climate change adaptation is a process to help ensure that an organisation can cope with these risks by putting in place measures to either reduce the risk or minimise the damage through having a well thought out response plan. In this way, it is no different to the usual risk management and emergency response procedures of any large organisation.

This document aims to help Local Authority officers to look in detail at what measures are already in place to manage the risks presented by climate change and weather events on their services through risk assessment and how to follow up on key vulnerabilities identified, or how to ‘park’ non-urgent issues but return to them in the future.

## Accelerator Pack – Embedding Climate Change Adaptation into LA Processes

This guidance has been produced by CLASP to help you to get started on the process of climate change adaptation. Further briefing documents provide more detailed guidance on integrating climate change adaptation into the following key service areas:

 <b>Planning &amp; Development</b>	Rossendale Borough Council
 <b>Highways &amp; Transport</b>	Cheshire West and Chester Council
 <b>Business Continuity</b>	Pendle Borough Council
 <b>Capital Assets</b>	Wigan Council
 <b>Emergency Services</b>	Liverpool City Council

Our thanks to the following Local Authorities who acted as pilots for this process and who have helped to develop these briefings: Rossendale Borough Council, Pendle Borough Council, Wigan Council, Liverpool City Council, Cheshire West & Chester Council.

See also **Why Bother to do Climate Change Adaptation without NI 188?** which outlines other drivers for Local Authorities to manage climate risk including the Civil Contingencies Act, Flood and Water Management Act and the forthcoming transfer of Public Health responsibilities to Local Authorities. [Internal-link](#)

### Getting Climate Change into the Risk Management Process

You should already have an understanding of how risk management, emergency planning and business continuity processes are carried out in your local authority (see Getting Started on Climate Change Adaptation) and what policies and risk registers you have in place that you need to include in the risk management process. Your LCLIP (Local Climate Impacts Profile) will have told you how your local area has been affected by weather in the past and how you have responded to this.

Now you need to check that your existing plans and processes respond adequately to the risks presented by weather and climate change. This process will help you identify your high risk areas and vulnerabilities, and issues that you need to keep an eye on to deal with in the future. The exercise also helps you build awareness of climate change into forward planning, getting related risks into existing risk management processes, building resilience into your local authority.

**You have two options:**

- a) You go round each service area (or partner) and conduct a risk assessment meeting with them to assess the risks and vulnerabilities and agree on resulting actions needed.
- b) You run a series of workshops and work through the risks, measures in place to manage these, and identify vulnerabilities and actions needed together and then hold individual follow-up meetings to get more detail and discuss possible actions.

## Accelerator Pack – Embedding Climate Change Adaptation into LA Processes

We strongly recommend bringing people together in groups to work on this at some stage. Because your services are interlinked and interdependent the results will take into account different perspectives, you'll build greater awareness across a group and you'll be more likely to act on the risks that are not currently adequately managed.

**For Example:** In one of the pilots the team doing the surface water management plan had not considered the impact on social care of staff not being able to get to vulnerable people and in considering that it put a different light on the relative risks.

### Who Do We Need To Involve?

You need to work through each service area for your local authority to assess how the service is affected by weather and climate; how well existing plans and policies manage the risks and where action is needed to address vulnerabilities.

You will need the support of your **Risk Manager, Emergency Planning Manager** and probably your **Business Continuity Manager** in planning, delivery and follow up for this process. If you are not in a policy role, you'll also need to speak to your **Policy Officer/s** to ensure that climate change risk is taken on board in policy making over the long term.

It is important to work at a senior level, with **Heads of Service** as well as key people with critical practical local knowledge and information such as your **Planners, Facilities Managers, Drainage Engineers, Highways Assets Managers, Contract Managers etc.**

This is an iterative process, even with a list of service areas and key people you need to involve. After each meeting or workshop you need to think about who you need to go back to for more information, such as **HR** or **IT**, or other people such as head teachers or external partners, or those who use certain buildings or provide mobile services, such as community transport. Be ready to be flexible.

In some of the CLASP project workshops we had external experts on hand, for example, it's useful to invite someone from the **Environment Agency** or **United Utilities** to get an understanding of what they are doing on flood risk and drainage. It might be useful to consider health impacts with your **NHS** (or **PCT** until their roles change) or to invite someone from the **Highways Agency** or other relevant experts to give an external view. Your **Local Resilience Forum** is also an important resource and centre for Emergency Planning and links into partners.

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### Where to Start?

You might have identified some key service areas that face particular risks through your LCLIP or through general workshops or meetings you've held already on climate change adaptation. Or you might have experienced a severe weather event such as a flood or storms that highlighted gaps in your plans, and help identify good places to start.

If you don't have an obvious starting place, then **Business Continuity** is a very good way to engage people in the process and to build awareness for follow up work on longer term impacts.

If you tackle Business Continuity, you're likely to end up looking at how your **Emergency Plans** pick up on climate change risks too. It will also give you an indication of which services might be best tackled next.

Looking at physical infrastructure like **Highways & Transport** or **Buildings** or impacts like flooding, that people can relate to easily are good entry points to start discussing risk assessment and climate change, and can then lead onto people-based services and cross-cutting services like **Human Resources** and **IT**.

All authorities are likely to need to take a good look at Flood Risk – we have found that knowledge of flood risks often lies within Planning and with Drainage Engineers. It is important that the emergency planners, risk managers and other service heads have seen the most up to date flood risk assessment maps and in light of recent updates, examined whether emergency, business continuity and service management plans take flood risk into account. You will need to gain a good understanding of what is in place to manage flood risk now and through Planning and Land Use policy in the future. New Local Authority duties under the Flood and Water Management Act 2010 mean that bringing people together to discuss this is timely since they will need to be working together on flooding and surface water management soon if they are not doing so already.

### Thinking about Long Term Risks

This risk assessment process identifies the risks presented by future climate change such as warmer, wetter winters or hotter, drier summers. But it can be hard to identify what needs to happen now to reduce the impacts of longer term change because people tend to focus on more immediate risks. Risk assessment with **Planning and Development, Highways and Transport, Capital Assets** and **Policy Units** are important because these service areas are making policy, decisions and investments that will last well into the future and need to be resilient to future climate impacts.

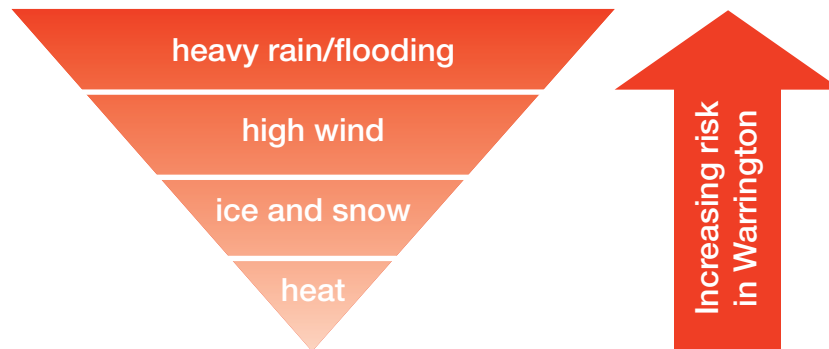
By referring to your Local Climate Impacts Profile you'll know what weather and climate conditions you are currently most vulnerable to. By looking at the information on predicted climate change you'll be able to see where these vulnerabilities are likely to get worse.



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The Local Climate Impact Profile for Warrington shows this clearly in a diagram:

On the basis of the Climate Profile, Warrington is most vulnerable to heavy rain and flooding, followed by high winds. Ice and snow, and hot temperatures do occur in Warrington and need to be taken into account, but these represent a lower risk at present.



It is vital to get Climate Change into your entire risk assessment process as an external factor that should be taken into account by everyone undertaking the risk assessment. That way you can ensure that new information on climate risks for your area is taken into account.

### Your Local Authority's Approach to Risk Assessment

Different Local Authorities have slightly different approaches to risk assessment. But they are all common in having:

- A risk assessment form or risk control form
- A risk matrix to calculate a risk score
- Risk criteria which define impact and likelihood

You need to get these and understand them, ideally from your Risk Manager.

### Carrying out a Risk Assessment

Conducting a risk assessment with a group is an important way of:

- Engaging and building awareness of everyone
- Making the most of the knowledge in the Local Authority in detail
- Highlighting the risks and actions in place already
- Getting buy in
- Showing people how their jobs/service areas interrelate
- Giving you something very concrete to work with

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During CLASP’s work with the five pilot authorities we found a risk assessment is best introduced using a worked example.

Outline the process you’ll be following, explaining the chosen format clearly.

Break up the process into two stages:

1. Risk Identification / What might happen?
2. Assessing Existing Plans / How well you already manage or reduce risks?

### 1. Risk Identification

For the first stage of **Risk Identification** introduce some of the possible risks and consequences and give an example of this on your risk assessment form. Explain how risk scoring works in your local authority (see below) then ask your participants to discuss, record and quantify the impact on their services of both severe weather and changing weather trends, such as:

- Warmer, wetter winters
- Hotter, drier summers
- High winds and storms
- Flooding
- Excessive summer heat
- Ice & snow

In identifying the risks, you should try to be as specific as possible about the impacts. “Flooding” may be an overall risk to the authority or the local area, but the risk to a service area as a result may be “Staff unable to get to work” or “Damage to road surfaces” or “Loss of archived material”.

### Risk Scoring

The risk score is usually the multiple of how severe the Impact of the event could be and the Likelihood of it happening.

Score = Severity x Likelihood





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**Fact Box: Scoring risks**

Different organisations use different methods for scoring, but it is frequently a matrix e.g. 3x3, 4x4 or 5x5. You should also have a definition of the criteria used in assessing both the impact and likelihood. For example, for a 4x4 matrix:

**Likelihood**

Factor	Score	Measure
Very Unlikely	1	Has rarely/never happened
Unlikely	2	May happen once every 3 years, or longer
Likely	3	Likely to happen at some point in the next 1 – 2 years
Very Likely	4	Regular occurrence

**Impact**

Factor	Score	Service Delivery	Reputation	Failure to provide statutory duties	Personal safety	Financial
Minor	1	Service disruption for 1 day	Some complaints, contained within the section/dept	Litigation/ claim/ fine (£12k to £25k)	Minor injury or discomfort	Cost less than £50,000. Up to 10% of budget
Significant	2	Service disruption for up to 5 days	Adverse local press/ public awareness	Litigation/ claim/ fine (£25k to £50k)	Severe injury	Cost between £50,000 and £250,000. Up to 25% of budget
Serious	3	Significant service disruption for more than 5 days	Adverse local publicity of a persistent nature	Litigation/ claim/ fine (£50k to £250k)	Major injury	Cost between £250,000 and £500,000. Up to 50% of budget
Major	4	Total loss of service for more than 5 days	Adverse and persistent national media coverage	Litigation/ claim/ fine (>£250k )	Death	Cost more than £500,000. Up to 75% of budget

You should use your Authority's usual risk scoring mechanism and criteria so that your assessment will fit with the assessment of other corporate and service area risks.



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## Example from Cheshire West and Chester Council - Transport

NATURE OF IMPACT - Description (Assumed as a threat, unless stated)	SERVICES AFFECTED	RISK SCORE:		
		Impact score: 1-4 (A)	Likelihood score 1-4 (B)	RISK SCORE: Impact X Likelihood (A x B)
Increased risk of flooding (all types) could potentially submerge infrastructure, impact on all modes/movements and access to services/employment etc. Potential for wider impact on service delivery, utilities, communications and Emergency Services.	Highways & Transportation	4	3	12
Increased potential for blockages in gullies and drains will require increased maintenance regimes.	Highways & Transportation	3	3	9
Increased river flows leading to accelerated scour/erosion of bridges/embankments.	Highways & Transportation	3	3	9
Risk to public safety/life caused by flash flooding.	Highways & Transportation	4	1	4

## 2. Assessing Existing Risk Management Plans and Activities

You should already have plans in place to manage the impact of a severe weather event, and may also have identified or be working on ways to reduce the likelihood of weather causing you problems, such as flood defences.

For each risk identified, particularly those with a high score, ask your group to detail existing plans, projects and policies that help manage the risks or impacts and then re-score what risk remains – the residual risk. This helps you to test and identify whether existing plans are adequate now and perhaps in the future given changes expected in the climate/weather.

Test this too by asking: Have these plans worked well in the past? Does everyone know what to do? Are they dependent on other services working? What if the power or communications are down?

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**Example: Pendle Borough Council, Business Continuity** – using a 3x3 matrix

Description of Risk <b>SEVERE STORMS AND HIGH WINDS</b>	Inherent Risk Score	Mitigating Action/ Controls already in place to address risk	Residual Risk Score	Adequacy of action/ control to address risk
All services Power supply down	8	Emergency Plan. Send staff home. Likely to be able to cope for 1-2 days in most service areas.	8	Inadequate. Not included in Business Continuity Plans. May be significant issue with ability to contact staff, emergency services and public.
Operational Services Injury to front line outdoor staff	6	H&S training adequate & staff have adequate PPE. In extreme conditions would withdraw staff from non-essential outside duties and send out in teams for essential work.	1	Adequate
Operational Services Closure of tip and waste transfer station	6	Reciprocal arrangements in place to use other facilities if accessible. If not, would stop waste collection service temporarily and catch up with workload on overtime in following days. Need to ensure good communication with public.	1	Adequate but resource implications. Reputational impact high if communications inadequate.

### Running a Risk Assessment Workshop or Meeting

If you have chosen to conduct your climate change adaptation risk assessments through a workshop based approach, rather than through more individual meetings, the information below helps you run an effective workshop. It would also be useful to read this through to help you prepare meetings if that is your chosen method to engage with your colleagues.

Either way, having chosen the service area or topic for your first risk assessment and met up with your Risk Manager you'll need buy in from Senior Manager/s to get all the right people to your workshop session/meeting. If you are running a stand-alone workshop, invite participants with plenty of notice, maybe speak at a departmental meeting to ensure their buy in, or get scheduled into an existing team meeting, but make sure you get enough time. Use case studies or examples that show them why this is relevant to their role and area.

In Pendle, a presentation on climate change adaptation to the Management Group got buy in, and a time slot in a pre-scheduled meeting. The invitation to the workshop included a list of service areas and possible climate risks.

Discuss the agenda and approach with your Risk Manager, including how best to conduct a risk assessment. Your local authority will have a risk control form or risk assessment form that is used to log and assess risk. This form will be accompanied by risk criteria for impact/severity and for likelihood/probability which help you with risk scoring. If your form is very complicated you could use the form given in the Climate Change Adaptation Support Project and transfer information over in follow up meetings or after the workshop.

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Think about whether you need external support to challenge internal assumptions or outside expertise in the subject (you might be able to ask for peer support from a neighbouring local authority in return for your support to them).

At this stage discuss with your own manager or Risk Manager what process will be followed to act on risks identified.

Remember you won't complete everything in one session. You need to plan your follow up and work with other departments or service areas.

You will need two – three hours for a workshop.

Your sample agenda might look like this:

- Introduction to workshop
- Introduction to climate change adaptation (make sure people understand the implications, costs, benefits, use real examples including costs)
- Warm up exercise (impacts on services, policy discussion)
- Explanation of risk assessment process
- Risk assessment exercise
- Outline next steps

(Sample agendas with timings and sample presentations can be downloaded from the CLASP website for you to copy and use hyperlink to XXXXX tbc).

### What worked best in the CLASP Climate Change Adaptation Support Project?

Five local authorities worked on developing risk assessment on five service areas as follows:

Pendle Borough Council	– Business Continuity
Rosendale Borough Council	– Planning & Development
Liverpool City Council	– Emergency Services
Cheshire West and Chester Council	– Highways & Transport
Wigan Council	– Capital Assets

Detailed information on risk assessment in each service area is available with this briefing, however, key lessons are provided below which may be useful in helping you to plan your approach to the process of risk assessment on climate change in your area.

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### Preparation Through Awareness-Raising in Pendle

Meeting with the Risk Manager and then giving a short presentation on climate change adaptation to the Management Group helped to gain support to make time available for a workshop on risk assessment within a pre-scheduled Management Group meeting, despite pressures to address urgent budget issues.

### Using External Speakers

Cheshire West and Chester Council focussed on Highways and Transport. At their workshop an external speaker from the Highways Agency provided a useful insight into how the Agency is tackling adaptation across the whole of the region. A lesson from the workshop was that a representative of United Utilities would be useful at similar events.

Pendle was looking at Business Continuity. A Risk Manager from Lancashire County Council attended the workshop and spoke about the work the County is doing on adaptation and what gaps could be identified in Pendle's Business Continuity Plans.

### Using Case Studies

Rosendale focussed on Planning and Development. In the workshop, participants worked through four real examples of sites that might or have come forward for development. This helped everyone to really understand the practical issues likely to be faced and therefore what policies needed to be developed and what training would also be required.

### Over-complicating the Assessment

In one of the earlier workshops in the project, a quite complex risk assessment form was used, which people working in groups found difficult to use. The approach outlined above and used in subsequent workshops was simpler for participants to understand quickly and use effectively. If you need to gather more complex information, this can be done in follow up meetings or as 'homework' following the workshop.

### Bringing People Together in a Workshop

Mixing up people from different service areas in workshop groups is very useful because it shows how services interrelate and rely on each other. Emergency Services relies heavily on Highways to deliver its services, so has a big stake in helping in a risk assessment process for Highways and Transport. Bringing people together also shows up cross-cutting issues and policies such as communications, IT and Human Resources.



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### Emergency Services – working across a large number of organisations

Liverpool found it very difficult to get in touch with the right people in some of the key emergency organisations. Often if you mention you are working on climate change adaptation you'll be put in touch with the lead officer for sustainability or climate change, when you really need an emergency planner or risk manager. In this project, individual meetings or mini-workshops were held with each organisation to complete the risk assessment process.

“If we had to do this again, we'd start with a presentation at the Local Resilience Forum to give information on what we were doing as a Local Authority. We'd then get to the right people quicker in the Emergency Services, and hold the individual meetings with people in each service. Meeting individually meant we got to meet more people and get more information.”

### Summary of Overall Findings from the Workshops with Local Authorities

This summary is based on the experiences of five Local Authorities involved in the CLASP Climate Change Adaptation Support Project but also reflects work the consultants have done with other local authorities. Defra has commented to CLASP that many local authorities across the country have reported similar gaps/challenges, especially on planning and making the economic case for adaptation.

#### What we found

- Emergency response is well-planned
- Business continuity planning is in place but has gaps in some cases
- Recovery phase planning is not generally well understood or developed
- Prevention is only really considered for serious risks e.g. flooding, and in some new developments - “We are very good at managing failure”

#### Where are the gaps? Long-term thinking beyond normal planning horizons:

- Green space planning
- Surface water management - communication
- Implementation of planning policy
- Reducing the effect of excessive heat
- Assessment of budget implications of prevention vs dealing with the event
- Roads maintenance, tree maintenance, social care, housing
- Maximising community involvement

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### What Next

If you have had a lot of people working on risk assessment you will need to moderate the risk scores with the Risk Manager to ensure that they have been accurately assessed against your Local Authority's risk criteria.

Service Heads and others involved in the risk assessment process will need to regroup to discuss how to respond to the risks identified. This should take place within the corporate approach to risk management.

Are you going to do anything about the risk? Depending on the level of risk you can:

- **Tolerate:** Accept the risk and take no further action (you should continue to monitor this risk in case it changes)
- **Treat:** Take action to bring the risk to an acceptable level
- **Transfer:** Reduce your responsibility for the risk, mainly through insurance or making sure your suppliers are able to manage their part of the risk (through procurement and contract management) or sharing the risk between organisations
- **Terminate:** Stop doing the risky activity, either permanently or during the weather event.

If you decide to treat the risk there are different ways to think about your options which you may find helpful – you might want to take a step back from some 'traditional' actions so you can either save money, create wider benefits to the community or keep your options open for later. Cost benefit information on the costs of acting now rather than paying the costs of handling an emergency or making retrospective changes to service plans or investments will be useful at this stage, but this information may not be readily available. The four types of option for action are:

#### Low Regrets

- Relatively low cost action but large benefits in the future when climate change impacts occur

e.g. restricting development in flood-prone areas through Planning Policy or Land Use Policy

#### Flexible

- Incremental actions when both the risks of inaction and uncertainties of impacts are high
- Takes account of evolving science, impacts and technologies

e.g. not investing a large amount but trying something cheaper to see if it works, and something that allows for other options to be used later –  
i.e. not locking yourself into one solution.

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### Win-Win

- Actions that take account of climate change but also have other benefits (e.g. social, environmental) and that do not have additional costs

e.g. Flood management measures that can be combined with biodiversity projects

e.g. Parks planting schemes that are cheaper to maintain and that the public like better

e.g. Building a swale, rather than a drain

### No Regrets

- Benefits exceed costs whatever the long term climate change impacts

e.g. siting new electrical sub-stations and server rooms at higher level to avoid flooding

You really must act now to ensure your Planning and Development policies are in place to lay the foundations of a well adapted and resilient local area since these policies are being implemented now, and will have a very big influence well into the future. Putting in place future-proof developments and infrastructure is critical.

The risk assessments should then feed into your Corporate Risk Management Processes which will involve an annual review and updating process.

Try to ensure that within the overall Risk Management Process for your local authority, changes to climate and weather are included as an external risk factor so that new information that comes from climate change experts, such as UKCIP, are fed into ongoing risk assessment work. Changes may alter the adequacy of existing plans that manage existing conditions adequately, but may not manage significantly changed weather patterns over the coming years.

If you are writing a Climate Change Adaptation Strategy, the risk assessment process will form part of that document and inform any related action plans.





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### Useful Resources

The **LG Improvement and Development** (formerly IDEA) website has useful information on adaptation including case studies such as the Liverpool City Council case study on developing a Climate Change Adaptation Strategy. The site also has good information on understanding the data in climate change projections.

<http://www.idea.gov.uk/idk/core/page.do?pagelId=13524862>

The **UK Climate Impacts Programme** has all the information on climate change adaptation including projections, information on LCLIPs and case studies (you have to log in to access these) and a range of tools and wizards.

<http://www.ukcip.org.uk/>

**Climate Change North West** has useful information on how the northwest region is adapting to climate change, including sector briefings covering local authorities and key industry sectors.

<http://www.climatechangenorthwest.co.uk/1611/adaptation.html>

Information on the **Energy Saving Trust** website on climate change adaptation, this still refers to the NI188 Indicator and the five levels but has information on risk assessment for different business areas and case studies.

<http://www.energysavingtrust.org.uk/nottingham/Nottingham-Declaration/Events-resources/Adaptation-extras>

**Local and Regional Partnership Board (LRAP) Adapting to Climate Change - Guidance Notes for NI 188** is a useful guide to the entire adaptation process. It includes good questions to ask on priority action areas and on including the LSP.

<http://www.lga.gov.uk/lga/aio/1382855>



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For more information on what to do to manage climate change adaptation please see the accompanying documents produced for the CLASP Climate Change Adaptation Support Project.



**Why bother to do Climate Change Adaptation without NI 188?**



**Getting Started on Climate Change Adaptation**



Accelerator Pack – Embedding Climate Change Adaptation into LA Processes

Climate Change Adaptation Risk Assessment for:



**Planning & Development**      Rossendale Borough Council



**Highways & Transport**      Cheshire West and Chester Council



**Business Continuity**      Pendle Borough Council



**Capital Assets**      Wigan Council



**Emergency Services**      Liverpool City Council