

NI188 Planning to adapt to climate change

Appraising adaptation options



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NI188 level 2 criteria

The Authority has undertaken a comprehensive risk based assessment of vulnerabilities to weather and climate, both now and in the future, and has identified priority risks for its services.

It has **identified the most effective adaptive responses** and has started incorporating these in council strategies, plans, partnerships and operations (such as planning, flood management, economic development, social care, services for children, transport etc).

It has begun implementing **appropriate adaptive responses** in some priority areas. In its role as a community leader the council has started working with its LSP encouraging identification of major weather and climate vulnerabilities and opportunities that affect the delivery of the LSP's objectives.

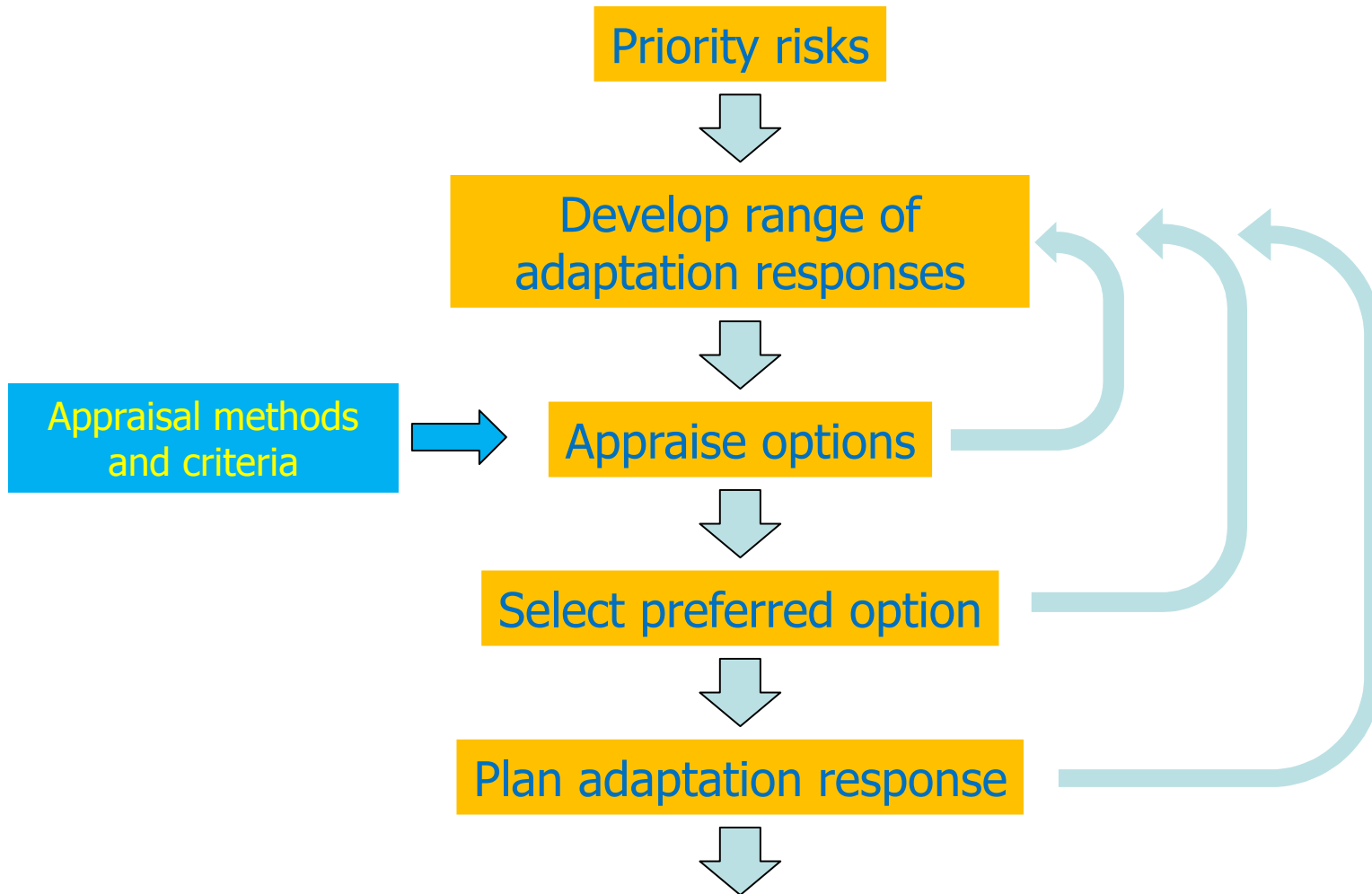
NI188 level 3 criteria

The Authority has embedded climate impacts and risks across council decision making.

It has developed a comprehensive adaptation action plan to deliver the necessary steps to achieve the existing objectives set out in council strategies, plans, investment decisions and partnership arrangements in light of projected climate change and is implementing **appropriate adaptive responses** in all priority areas.

This includes leadership and support for LSPs in taking a risk based approach to managing major weather and climate vulnerabilities/opportunities across the wider local authority area.

Selecting adaptation responses



Prioritise Climate Risks

- Prioritise those risks that are significant in the context of the scope of the risk assessment so that adaptation can be shown to be reasonable and proportionate
- Compare climate and non-climate risks:
 - climate change is likely to be just one of a large number of risks
 - use existing risk register to assess the importance of climate risks relative to non-climate risks
 - note that the relevant importance of risks may change over time
- Consider your authority's attitude to risk
- Be explicit about sources of uncertainty

Likely types of priority risks

- **Current risks/vulnerabilities**
 - o Physical environment – operations and estate
 - o Service delivery
- **Current actions/decisions with long term consequences**
 - o Investments
 - o Developments
 - o Contracts
 - o Development of policies and strategies
- **Potentially significant impacts in longer term as climate changes**
 - o Physical environment
 - o Service delivery
 - o Policy objectives

Two broad types of adaptation responses

- **Building Adaptive Capacity (BAC)**
 - undertaking research, institutional change, education and training,
 - creating standards and legislation, management, and resources
 - developing policies, plans, strategies
- **Delivering Actual Adaptation (DAA)**
 - building flood defences or managing retreat
 - putting more nails in a roof tile, increasing the diameter of a drain
 - creating 'siesta' times in a business or locality

Effective

- The term **effective** is described in the *Consultation on the Adaptation Reporting Power in the Climate Change Act 2008*:
- ...a measure should reduce the risks from climate change and not introduce perverse effects. It should be context specific, implementable and enforceable.
- Effective measure will incorporate flexibility to adjust in the future to cope with a range of climate scenarios, as well as socio-economic, technical and other changes. They will not limit future adaptation actions.
- The consultation document also makes reference to the terms **efficient** and **equitable...**

Efficient

- The expected reduction in social damage costs from climate change should justify the costs of implementing the measure.
- Measures should be timed appropriately. Activities that are flexible or renewed and changed often can adapt over time to changes in climate. Activities with long lead times and lifetimes are more likely to be locked into their design and performance window. Climate change should be incorporated into their design. Unanticipated climate change could lead to costs through poor performance, need for retrofitting, or early abandonment.

Equitable

- Some of the groups that are most vulnerable to the effects of climate change may also be least able to adapt to the effects of climate change.
- It will not be possible to avoid all of the costs imposed by climate change. The distributional consequences of different options should be considered to ensure that individuals or groups do not bear a disproportionate share of those costs.

Current risks/vulnerabilities

- Timely appropriate response
- Need to decide urgency (compared with other risks, resources, etc)
- Reasonable short-term measures may need to change in longer term, but
 - o Aim for flexibility
 - o Avoid actions that will make it more difficult to manage or adapt in future
- Contingency planning

Current actions/decisions with long term consequences

Need to understand:

- how sensitive (the results of the) decision/action are to climate changes?
- how climate may change over the effective period of the action/decision?

Potential significant impacts in longer term as climate changes

- May not need any immediate response
- Build capacity to respond in future, e.g.
 - o Monitoring and review of risks
 - o Research responses
- Timing may be determined by the lags in:
 - o Planning
 - o designing, and
 - o implementing a response
- Contingency planning

Some types of responses

- Delay – research, monitoring,
- Bear risks and manage impacts
- Physical changes
 - Defensive
 - Adaptive
- Transfer or sharing risks
 - Insurance
 - Diversify
- Change of use
- Change behaviour
- Retreat – abandon

Some possible appraisal criteria

- Cost
- Resource use and availability
- Relations to other policies objectives, especially sustainability
- Resilience
- Flexibility
- Ease of implementation
- Speed of implementation
- Capacity to cope with potential changes – timescale

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