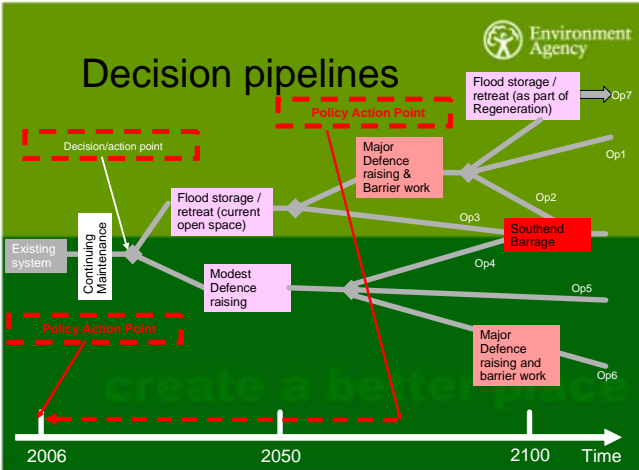


## Tools

<b>Title of tool: Decision pipelines tool</b>							
<b>Keywords:</b> Decision; testing; climate; simulation; stakeholder							
<b>Audience:</b> Main framework is for 'Flood risk assessment expert'. Links to stakeholder engagement. It can be adapted to spatial planners operating at national, regional and local levels.							
<b>Level of expertise required to use the tool:</b> Expert only							
<b>Messages in the ESPACE strategy where the tool can be applied:</b>	1.	2.x	3.x	4.	5.	6.	7.
	8.	9.	10.	11.	12.	13.	14.
<b>Sentences linking the tool to relevant strategy messages:</b> 2 The Decision pipeline tool is very effective in looking at testing decisions over the whole life time of a plan. 3 The Decision pipeline tool is central to risk management in the face of an uncertain level of risk.							
<b>Overview:</b> The Decision pipeline tool is an emerging concept that provides routes into the future that can adapt to climate change as its effects unfold.							
							
<b>Photo/diagram/map:</b>							



**Description:**

The Decision pipeline tool concept emerged late in the ESPACE project and was informed by follow up work by the Thames Estuary TE2100 Project. The Decision testing Tool (see Tools: Decision testing tool) was critical to the development of decision making in the TE2100 project. It essentially enabled combinations of flood risk measures to be assessed for effectiveness against differing climate change scenarios.

The TE2100 project took this work and further investigated its relevance in the early conceptual options study, which looked at how flood risk measures coped with differing levels of change resulting from climate forcing. It led to the identification of thresholds at which differing responses were effective in differing parts of the estuary. This analysis could be done independent of the scenario (scenario neutral analysis) and allow for a differing measures to be assembled together which would cope with differing levels of change.

During the next stage of the TE2100 project these combinations or portfolios have been assembled and strung together as options or routes through the century which would allow flood risk to be kept within acceptable limits. The options allow for the introduction of new measures as changes such as sea level pass critical thresholds.

Part of the effectiveness of the decision tree approach is to allow the development of a strategy independent of scenario. Once the vulnerabilities have been assessed an adaptable option or route can be assembled. Once this is done it can be tested against differing scenarios. When scenarios are added back in to the analysis they essentially determine when a critical threshold will arrive in time. The implementation of such an adaptable option will depend critically on monitoring the actual rate of climate change and ensuring that sufficient lead times are identified for critical new measures – such as new barriers in the case of TE2100 – to be implemented.

This concept of decision pipelines could be used and modified for many climate change adaptation issues. It will be the subject of further development during the extension of the ESPACE project, which will run until May (2008).

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**Further information:** :  
ESPACE Decision Making Framework and Tools  
Phase 2 Piloting report