Step Three: Determine the criticality of the assets to flooding

Step Four: Utilise a risk matrix for prioritisation

Step Five: Assess the impact of resistance and resilience

Through this filtering process, a shortlist of assets is prepared as candidates for detailed economic appraisal. This should be viewed in conjunction with the Appraisal Summary Tables (AST) within the Environment Agency FCERM guidance (2010a; 2010b).

Those assets that do not make the short-list should be merely enumerated and described (as illustrated in Table 6.1) to give qualitative weighting to the appraisal and provide details for any prospective Multi-Criteria Analysis.

THE TOTAL RISK MATRIX

One of the key elements of the prioritisation process is the use of a 'total risk' matrix. This provides a classification of the likelihood of damage or disruption and the scale of this impact. This process acts as a risk filter with generally only those assets considered to be at **High** or **Very High** risk being fully quantified within an appraisal: although there may be situations where it is appropriate to appraise other categories.

Table 6.2 *Risk Matrix*

IMPACT**	Significant	Medium Risk	**High Risk**	**Very High Risk**
	Moderate	Low Risk	Medium Risk	**High Risk**
	Low	Negligible Risk	Low Risk	Medium Risk
		Low	*Moderate*	*Significant*
			LIKELIHOOD*	

* These following the NaFRA (Environment Agency, undated) low, moderate and significance likelihood bands

** The significant, moderate and low impact categories are defined for each receptor type.

Since flooding in 2007 there has been an increased focus on the securing of the continuity of service of utilities and communication networks during flooding. This has meant that many utility and transportation organisations have begun a process of assessing the susceptibility of their assets to flooding and have developed appropriate risk registers. These registers if accessible to appraisers will replace steps 1 to 3 in the prioritisation process and any filtering using the risk matrix.

Types of Losses
Prioritisation of losses for inclusion in project appraisal
The Total Risk Matrix
Lessons from previous floods
Summary of the relative importance of utility and infrastructure losses