

6. ENVIRONMENTAL OBJECTIVES, INDICATORS AND TARGETS

A set of environmental objectives, indicators and targets have been compiled for each of the Environmental Aspects identified as **KEY ISSUES**, against which the performance of the “recommended strategy” can be measured on an ongoing basis (see **Table 6-1**).

- The environmental objectives provide a benchmark “measure/indicator” against which the environmental effects of the Plan can be tested. They may often be similar to measures contained in the Plan or derived from objectives that may exist in other related Plans/Programmes (EPA, 2003).
- Environmental indicators provide a means of measuring the progress towards achieving the environmental objective over time (EPA, 2003).
- Targets refer to the desirable state in relation to each objective in quantifiable terms (EPA, 2003).

Objectives are identified for the following environmental aspects: biodiversity/flora and fauna, water, air/climatic factors, material assets/land-use, population and human health.

The main objective of the recommended strategy is the development of the Flood Risk Management Plan so as to put a strategy in place that can manage flood risk in the catchment. The main environmental objective is that the strategy will be implemented in such a manner as to avoid any significant detrimental impact on the environment. **Table 6-1** outlines the draft aspirational, objectives, indicators, and targets for each environmental aspect.

The environmental, indicators and targets identified for this study are largely consistent with those developed for other plans and programmes including the Water Framework Directive and County Development Plans within the area. The purpose of this is to ensure consistency in monitoring across various county councils, to avoid duplication of monitoring and to ensure data is comparable across various counties, RBDs and river catchments. The objectives, indicators and targets will be updated at the Environmental Report Stage to incorporate any changes in recently published or plans/programmes due to be published prior to completion of the Suir CFRMP.

Table 6-1: Draft Environmental Objectives, Indicators and Targets

Environmental Aspect	Objective	Sub-Objective	Indicator	Minimum Target	Aspirational Target
Biodiversity, Flora & Fauna	Maintain and improve biodiversity, flora and fauna particularly at designated areas of conservation	Protect, conserve and where possible enhance, internationally and nationally designated sites of nature conservation importance	Reported loss or impairment of designated habitat and species due to construction and operational phases of the plan	No significant negative impact or deterioration on designated habitats or species	Increase habitat diversity Improve conservation status of nationally and European designated sites
		Avoid damage to, and, where possible, improve habitats supporting legally protected species and other known species of conservation concern	Reported population sizes and/or areas of suitable habitat maintained or created for target species	No significant effect or deterioration on species richness and diversity	Increase in the population sizes of and/or extent of habitat supporting target species and habitats
		Protect existing riverine habitats, and where possible create new habitats, to maintain naturally functioning eco systems	Area of habitat protected created or restored	No change in area of habitat	Create new/restore areas of riverine habitats to enhance naturally functioning ecosystems
		Assist in reaching favourable conservation status of species and habitats of special conservation interest	Reported loss or impairment of designated habitat and species due to construction and operational phases of the strategy	No significant negative impact or deterioration on designated habitats or species	Increase habitat diversity Improve conservation status of European sites

Environmental Aspect	Objective	Sub-Objective	Indicator	Minimum Target	Aspirational Target
	Protect and where possible enhance fisheries within the catchment	Maintain existing, and where possible create new, habitat supporting salmonid fisheries	Area of suitable habitat supporting salmonid and other fisheries and number of upstream barriers	No net loss in suitable habitat for fisheries	Create new habitat supporting salmonid and other fisheries and improve access
		Maintain natural channel form for fisheries	Number of new barriers or obstructions to upstream migration constructed and/or modified due to flood risk management measures	No new upstream barriers or obstructions to fish passage	Improve existing upstream passage for fish
		Maintain, and where possible increase, existing waterside access for fishing	Length of waterside accessible for fishing	Maintain length of waterside accessible for fishing	Create new, or increase length of waterside access for fishing
		Ensure no adverse effects on shellfish waters	Classification/designation of existing waters	No deterioration in existing classification	Improve existing classifications or create new classifications
	Protect and where possible enhance freshwater pearl mussel habitats within the study area	Ensure no adverse effects on Freshwater Pearl Mussel habitats identified under the Fresh Water Pearl Mussel Sub Basin Management Plans	Reported loss or impairment of designated freshwater pearl mussel habitat and species due to construction and operational phases of the Plan	No deterioration in existing designation/status	Improve status and number of freshwater pearl mussel designations

Environmental Aspect	Objective	Sub-Objective	Indicator	Minimum Target	Aspirational Target
Water	No adverse impact on achieving the objectives of the Water Framework Directive to achieve “good status” by 2015 in any water bodies influenced by the implementation of the Plan	Maintain existing and where possible restore natural fluvial processes in support of proposed measures under the WFD	Numbers of water bodies at risk of not achieving good ecological status	Water bodies potentially impacted by the development will meet requirements of Water Framework Directive	Improve the quality of water
				Provide no constraint to the achievement of good ecological status by the WFD deadline of 2015	Significant contribution to the achievement of good ecological and chemical status by 2015
	Support the prevention of deterioration of water status and in particular to prevent the downgrading of High Status water bodies	Maintain existing High Status Water bodies and where possible restore water bodies to High Status	Number of High Status Water Bodies	Maintain existing High Status Water bodies	Improve the quality of water bodies to High Status
Landscape & Visual Amenity	Protect and where possible enhance landscape character and visual amenity	Protect and where possible enhance , the character of designated Landscape Protection Zones within urban area	Compliance with landscape character objectives relevant to flood risk management for each county	No adverse changes in landscape character	Contribute to the amenity value and landscape value of sensitive landscape areas.
			Loss of public access and loss of public amenity areas	No loss to public amenity areas, public walk ways and cycle paths	Creation of additional public amenity areas, walkways and cycle paths
		Protect, and where possible enhance, views into/from important scenic areas and routes	Change in quality of existing scenic areas and routes	No adverse change in quality of views into/from existing scenic area/routes	Enhance change in quality of views into/from existing scenic area/routes

Environmental Aspect	Objective	Sub-Objective	Indicator	Minimum Target	Aspirational Target
Population and Human Health	Protect public health, safety and employment	Protect people and property from adverse effects (physical, psychological and economic) of flooding where significant risk exists.	The number of people and properties at risk from flooding	Reduce the risk of injuries/fatalities and number of properties impacted from flooding	Minimum Number of people impacted Minimum number of properties impacted
			The number of people at risk from adverse drinking water conditions due to flooding	Maintain drinking water supply standards	Number of water bodies/people impacted
		Protect key community services e.g. hospitals from adverse effects of flooding	The number of key services (e.g. hospitals, social services, schools, churches, retirement homes, infrastructure) at risk from flooding	No increase in key community services at risk from flooding. Or no increase in the risk of flooding to key community services	Minimum impact to community services
		Protect areas of significant employment from adverse effects of flooding and provide a secure environment for economic activity and development	Number of commercial businesses, industrial premises and jobs protected	No areas of significant employment at unacceptable risk from flooding	Minimum impact to community services
Material Assets	Protect Key Infrastructure	Reduce flood risk to key transport infrastructure and water related	Length of road and rail infrastructure at risk from flooding	No increase in the length of road and rail infrastructure at risk from flooding	Reduce the risk to infrastructure from flooding

Environmental Aspect	Objective	Sub-Objective	Indicator	Minimum Target	Aspirational Target
		infrastructure	Amount of services affected	No increase to the amount of services at risk to flooding	Reduce the risk to services from flooding
	Manage risk to agricultural land	Avoid negative impacts to agriculture	Area of agriculture at risk (based on Corine land use classes)	Not to increase any flooding risk	Minimise extent of risk to agricultural land
Tourism and Recreation	Avoid damage to and enhance, where possible, recreation and tourism	Avoid damage to significant visitor attractions and sporting and recreational resources	Number of attractions and recreational assets protected from flooding	No increase in number of assets at risk	Reduction in flood risk to attractions and recreational assets Increase in number of recreational and tourist assets due to flooding
	Avoid damage to angling a valued tourism asset	Maintain existing, and where possible create new, habitat supporting salmonid fisheries	Area of suitable habitat supporting salmonid and other fisheries and number of upstream barriers	No net loss in suitable habitat for fisheries	Create new habitat supporting salmonid and other fisheries and improve access

Environmental Aspect	Objective	Sub-Objective	Indicator	Minimum Target	Aspirational Target
Cultural Heritage	Avoid damage to or loss of features of cultural heritage importance, their setting and heritage value within the study area	Avoid damage to or loss of known protected buildings, structures and areas of architectural heritage and cultural heritage importance, including their setting and heritage value, within the study area	Numbers and types of designated areas of architectural and archaeological importance (i.e. National Monuments, Recorded Monuments on the Record of Monuments and Places, sites on the Record of Protected Structures and Sites and Monuments Records and within Architectural Conservation Areas including their setting and heritage value, at risk from flooding	<p>No damage to or loss of designated areas of architectural and archaeological importance including protected buildings, structures and features listed on the National Monuments Register, RMP, SMR, RPS and within ACAs, including their setting and heritage value, as a result of flood risk management measures; and/or</p> <p>No increase in flood risk for features sensitive to the impacts of flooding</p>	<p>Enhance the physical context and structure of water based heritage features; and/or</p> <p>Reduction in flood risk for features sensitive to the impacts of flooding</p>