



This table summarises the main ways a typical catchment is assessed under European directives:

Element	Explanation	Regulatory Driver
Ecology	This relates to the health of the flora and fauna in the watercourse. The classification includes standards for fish, macro-invertebrates, diatoms and plants. In SSSIs and European protected areas specific interest features of the ecology are protected such as the chalk stream habitat. The ecology will reflect the effects of the chemical and physical impacts below.	Water Framework Directive – Ecological status And habitats directive
Chemical Status	<p>This refers to the concentration of specific pollutants, e.g. metals; priority substances and priority hazardous substances such as pharmaceuticals and pesticides.</p> <p>Chemical status is made up from a number of factors such as:</p> <p><b>Ammonia</b> - High levels of ammonia are toxic to fish and typically derive from sewage treatment discharges and diffuse pollution from septic tanks and manures</p> <p><b>Sediment and Nutrients</b> - These promote growth of plants and algae and in excess will change the natural community, often favouring algal mats and blooms. They arise from both point sources like sewage treatment works and septic tanks and from artificial or organic fertilisers used on land, as well as through natural break down of the riparian plants.</p> <p><b>Nitrogen</b> - This is primarily relevant in transitional (estuaries), coastal and ground waters. It is also important in ground waters which are used for public water supply.</p> <p><b>Phosphorus</b> - This is considered primarily in freshwaters In certain geologies, e.g. Upper Greensand, there can be high levels of background phosphorus.</p>	<p>Water Framework Directive- Chemical status</p> <p>Urban Waste Water Treatment Directive</p> <p>Urban Waste Water Treatment Directive (sensitive area)</p>
Hydrological status	This relates to the water flow within a river. It could be that river flows are higher, faster or lower than natural. These impacts could be caused by additional drainage, changes to the floodplain and river morphology (see below) or as a result of abstractions or diversions between river channels	Water Framework Directive- hydrological status
Morphological status	This reflects the naturalness of the river channel and its floodplains. Typically there has been some man-made intervention such as weirs, hatches, widening, deepening and disconnection of the river with its flood plain. This could relate to flood defence structures, reservoirs or urban development and creation of water meadows.	Water Framework Directive- heavily modified or artificial waterbody