

Table 1 Physical naturalness class descriptions

Class	Physical naturalness		
	Sub-categories		
	Shoreline condition	Riparian land up to 10 m from high water mark	Lake morphology if artificial
1 Natural	No evidence of human physical modifications of the shoreline. A marginal fringing wetland is likely, particularly in lowland lakes.	Riparian land is all semi-natural.	The edges shelve gently allowing colonisation by plants
2	Physical modifications of limited spatial extent - no more than 5% of shoreline. A marginal fringing wetland is likely, particularly in lowland lakes	Riparian land is predominantly semi-natural (90%).	Colonisation by plants should be possible at least 10m from the edge
3	Physical modifications and non-natural riparian land use of moderate spatial extent – no more than 1/3 of the shoreline. Marginal fringing wetlands are restricted in perimeter extent and depth.	Riparian land semi-natural for at least 2/3 of its extent	Colonisation by plants should be possible at least 3m from the edge.
4	Physical modifications extensive up to 2/3 of the shoreline	Riparian land semi-natural for at least 1/3 of its extent	The edges may be steep resulting in little habitat that can be colonised by plants. Only a very narrow strip of emergent, floating or submerged plants may exist.
5 Least natural	Modification of the shoreline is widespread with more than 2/3 of the shoreline reinforced. Marginal fringing wetlands are absent.	Riparian land semi-natural for less than 1/3 of its extent	If the site is artificial the edges may be steep resulting in little or no habitat that can be colonised by plants. Only a very narrow strip of emergent, floating or submerged plants may exist.

Table 2 Hydrological naturalness class descriptions

Class	Hydrological naturalness		
	Sub-categories		
	Structures	Water level fluctuations	Inflows and outflows
1 Natural	No structures affecting water levels or creating barriers	Natural seasonal water level fluctuations are expected.	Any inflows and outflows are natural, the surrounding land is not drained and ditches are absent.
2	Structures such as sluices and impoundments may be present, but are passable to most fish species, most of the time. This may be due to the presence of a fish pass or because the structure does not present an insurmountable obstacle.	Water levels naturally fluctuate or mimic a naturally fluctuating regime in a seasonal fashion (water levels higher in winter than in summer) and only moderate in extent. This may occur via active management of the water levels or naturally behind a structure if water levels can fall below its height in summer.	No additional ditches enter the lake, but inflows and outflows may have some modifications
3	A structure is present which is impassable to most fish species, most of the time	Water levels fixed and unable to fluctuate naturally.	Outflows may have been modified to reduce lake extent. Alternatively surrounding land may have been drained with ditches forming artificial inflows
4	Large impassable (all fish species, at all times) structure is present	Water levels are heavily depleted by abstraction resulting in considerable drawdown (but by less than 2m depth).	
5 Least natural	Very large impassable structures present	Drawdown of more than 2m depth annually.	Lakes in this category are likely to be water supply reservoirs or part of hydro-electric schemes.

Table 3 Chemical naturalness class descriptions

Class	Chemical naturalness			
	Method			
	Water clarity	Algae	Submerged plant distribution	Water quality or biological sampling
1 Natural	The lake substrate or Secchi disc will be visible through > 3m of water.	Algal growth of any type will be negligible	Submerged plants will grow to at least 3m depth or the max depth of the lake if it is less than 3m and wherever the substrate is not too coarse to enable plant growth	Water quality test kits do not register any positive results. Biological sampling indicates no evidence of pollution
2.	The lake substrate or Secchi disc will be visible through $>1 \leq 3$ m of water.	Noticeable algal growth may occasionally occur particularly in lowland lakes, but this will not be persistent or widespread. Filamentous and epiphytic algae will be rare.	Submerged plants may be limited to a depth of less than 3 m but greater than 1 m.	Water quality test kits register positive results but at low concentrations. Biological sampling indicates low levels of pollution
3	The lake substrate or Secchi disc will be visible through $>50 \leq 1$ m of water. Water maybe clear at certain times of the year but not others.	There may be moderate extent of filamentous algae and algal blooms may occur particularly in spring and autumn, but will not be persistent. Plants may have a heavy epiphytic burden.	Some submerged plants will be present but these are unlikely to be abundant or grow to great depths unless they are species tolerant of nutrient enrichment. Alternatively there may be an abundance of submerged plant growth early in the growth season but this will have crashed by August.	Water quality test kits register moderate levels of pollution. Biological sampling indicates moderate impacts on water quality.
4	Water will be brown or green. The lake substrate or Secchi disc will be visible through $>25 \leq 50$ cm of water.	There may be frequent algal blooms or large extents of filamentous algae.	Submerged plants will be very sparse if present	Water quality test kits register high levels of pollution. Biological sampling indicates high impacts on water quality
5 Least natural	Water will be brown or green. Unable to see the bottom under 25 cm of water..	Frequent algal blooms. There may be extensive filamentous algae.	No submerged plants are present.	Water quality test kits register very high pollutant concentrations. Biological sampling indicates major pollution issues

Table 3 Biological naturalness class descriptions

Class	Biological naturalness	
	Non-native plant species	Non-native animal species
1 Natural	No evidence of non-native species in the lake or on the riparian land.	No evidence of non-native species in the lake or on the riparian land.
2	Non-native plants should occupy no more than 5% of shoreline or lake area.	Non-native animals should rarely be encountered and not be creating an obvious impact. For some species such as carp their impact may be more easily spotted than the individuals. When the water is constantly a muddy opaque brown, only floating plants remain and there is no other form of sediment disturbance such as boat traffic, carp are likely to be the cause.
3	Non-native plants occupy up to 25% of the shoreline	At least one non-native animal found when appropriate search technique is used.
4	Non-native plants occupying up to 60% of the shoreline	Multiple non-native animals found when searched for.
5 Least natural	Non-native plants occupying more than 60% of the shoreline or lake area	Non-native animals are numerous, individuals found with little effort.