

Table 2: Functions of wetlands and benefits

Function	Benefit
Carbon storage and accumulation	Wetlands that create peat (such as fen, raised bog, blanket bog and some types of wet woodland) can store large quantities of carbon for thousands of years. Some management practices (e.g. drainage) can trigger the release of carbon (methane, carbon dioxide, particulate and dissolved carbon).
Water purification	Wetlands often form between land and open water, and can prevent pollutants (suspended solids, nitrogen and phosphorus) getting into rivers and lochs. Some artificially created wetlands (e.g. in Sustainable Drainage Systems (SuDS)) are constructed primarily to remove pollutants from run-off in towns and cities and retain flood water.
Flood management	<p>Wetlands slow the flow of rain water into rivers and lochs, which can slow down flooding. This is known as 'attenuation' of floodwaters.</p> <p>Wetlands can store floodwater in the floodplain, reducing the peak of the floodwater that passes through our towns and cities.</p> <p>On the shorelines of lochs and on the coast, wetlands act as a natural defence against coastal erosion.</p>
Water supply groundwater infiltration	<p>Wetlands collect and store water, which replenishes groundwater and therefore the water supply.</p> <p>Most Scottish drinking water has passed through a wetland before it reaches a reservoir. How these wetlands are managed affects the quality of the drinking water and the costs of purification treatments that may be needed. Artificially created wetlands play an important role in local water management where chemical or mechanical means would otherwise be needed to treat the water; for example, in sewage management.</p>

Source: <http://www.environment.scotland.gov.uk/get-informed/land/wetlands/>