

Legal requirement	<p>Threatened and protected ecosystems</p> <ul style="list-style-type: none"> • No process or activity in a listed threatened ecosystem may take place in the absence of a permit 	<p>Threatened and protected ecosystems</p> <p>Ecosystems that are threatened and in need of protection can be identified by a number of interlinked pieces of legislation. National ecosystems that are threatened and in need of protection have been identified under the National Environmental Management: Biodiversity Act .The purpose of listing threatened ecosystems is primarily to reduce the rate of ecosystem and species extinction and to preserve sites of exceptionally high conservation value. This includes preventing further degradation and loss of structure, function and composition of threatened ecosystems.</p> <p>Criteria were developed to identify threatened terrestrial ecosystems, with thresholds for critically) endangered (CU), endangered (ER) and vulnerable (VU) ecosystems. The listing of these ecosystems has implications in terms of activities requiring environmental authorisation under the National Environmental Management Act, and may have implications in terms of municipal land use planning applications. Future implications include having to obtain permission for a threatening process within these ecosystems, biodiversity management implications, and the potential imposition of monitoring and reporting requirements.</p> <p>The list of ecosystems that are threatened and in need of protection can be accessed from the DEA website (www.environment.gov.za).</p>
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Better Management Practice	<p>Threatened and protected ecosystems</p> <ul style="list-style-type: none"> • Fire sensitive natural vegetation is protected through an effective fire protection programme • Voluntary protection of land based on its inherent environmental characteristics e.g. establishment of conservation agreements or formation of conservancies is encouraged 	<p>Fire sensitive natural vegetation</p> <p>Much of the eastern half of South Africa is characterised by fire/climax grasslands or savannah that owe their very nature to their long history of association with fires. The sour grasslands in particular require regular top-growth removal by fire, since adequate removal by grazing alone is difficult in these grasslands. There are normally four major objectives for using fire in grassveld management:</p> <ul style="list-style-type: none"> • to burn off unpalatable growth that remains from the previous season and which if left unburnt, will result in a moribund grassland • to stimulate growth at the end of the dry season • to destroy parasites such as ticks • to control the encroachment of undesirable plants (both woody and forbs) – this is usually only successful in a limited number of applications <p>These are largely agricultural reasons, but fire also plays a significant role in maintaining ecosystem functioning. In addition, most grassland species (both plants and animals) are well adapted to a frequent fire regime. The regular application of fire in grasslands therefore serves both the strictly agricultural requirements a farmer may have, as well as playing a particularly important role in maintaining the ecosystem functions.</p> <p>As a general rule of thumb, fires in grassland should be applied every two to three years, although in ungrazed grassland, an annual burn is acceptable. If bush control is also required, a less frequent fire regime, which allows the accumulation of sufficient grass biomass to have an impact on the bush, should be applied. Head-fires (i.e. with the wind) are more effective against bush encroachment than a back-burn (against the wind), but can pose increased risks to the farmer. There are practical ways of resolving this, such as starting with a back-burn and then initiating a head-fire that will burn towards the back-burn.</p> <p>Finally, certain indigenous plant communities, such as natural forests, are usually sensitive to fires. Adequate protective measures should be taken in this regard to minimise damage to forest margins. This could encompass initiating the fires at the forest margin, and burning away from the forest. All burning must comply with the requirements of the National Veld and Forest Fire Act as well as any by-laws applicable in the municipal area.</p> <p>Voluntary protection</p> <p>The National Environmental Management: Protected Areas Act together with various other statutes provide for the formal protection of land based on its inherent environmental characteristics. Provincial environmental authorities and nature conservation bodies also promote less formal protection of biodiversity through, for example, the establishment of conservation agreements with landowners (biodiversity stewardship agreements), and the formation of conservancies.</p>
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