



WESTERN CAPE PROVINCIAL GOVERNMENT VELD & FOREST FIRE STRATEGY



1. **FOREWORD**

Veldfires (veld, forest and mountain fires in terms of the Act's definition) are a persistent problem in South Africa. They frequently cause emergencies, and often grow to disastrous proportions. At the same time, veldfires are natural – they occur as part of the normal process of events in grassland, woodlands and fynbos, and even sometimes in natural forests.

Veldfires are perceived as a problem because they pose a risk to life, property and the environment. The veld and forest fire situation has reportedly worsened significantly across South Africa during the past several years and there have been major and catastrophic fires in many areas. Over time we have become more vulnerable to the risk of veldfires because urban areas expanded into natural veld and forest areas, thereby exposing lives and homes to fires in the neighbouring veld, and simultaneously increasing the chance of veldfires being started. In addition, it is important to manage veld fires properly so that we protect environmental values. Most ecosystems of South Africa are adapted to a greater or lesser extent to the presence of fire. In these ecosystems we need to manage fire in a way that imitates nature. For this reason we must manage the control of veld fires both for the purposes of protection of people and their assets as well as for protecting our environmental values such as protecting biodiversity and catchment areas.

As our climate changes, so must our management of veld and forest fire. The Veld and Forest Fire Management Strategy gives provincial direction for the management of fire that will effectively restore the natural role of fire in ecosystem processes, as well as improve our ability to continue providing a world-class level of veld and forest fire response when unwanted fires occur.

2. **PROVINCIAL VELD AND FOREST FIRE MANAGEMENT STRATEGY**

Implementation of the Western Cape Veld and forest fire Management Strategy will result in healthier natural ecosystems; preservation of catchment areas; communities that are less at risk from fire; and a more cost-effective fire suppression program. This will be achieved by adopting a proactive approach to:

- 2.1 Reduce fire hazards and risks (particularly in and around communities and other high-value areas);
- 2.2 Carefully use controlled burning where the benefits are clearly defined and the risks can be cost-effectively managed;
- 2.3 Monitor and manage, rather than suppress, fires that are of minimal risk to communities, infrastructure or resource values;
- 2.4 Integration of fire management into programs aimed at the reduction and control of invasive alien plant species.
- 2.5 Minimize the potential occurrence of ecological undesirable fires in fynbos ecosystems.
- 2.6 Implement land, natural resource, catchment area and community planning that



- incorporates management of veld and forest fires at all appropriate scales; and
- 2.7 Develop a high level of public awareness and support for veld and forest fire management.

Fire is a natural and essential ecological process in most of WESTERN CAPE's fynbos. However, as was vividly illustrated during the 2000, 2005 and 2009 fire seasons, it can also have undesirable social and economic impacts, threatening human health, safety and property. Balancing the potential benefits and risks of veld and forest fire is a complex task for land, natural resource and fire managers. It is also a task that is vital to public safety and the sustainable management of fynbos and catchment areas in the province.

A strategic shift is needed to proactively manage the benefits and risks of veld and forest fires to meet the immediate and longer-term needs of society, preserve a healthy fynbos ecosystem and to protect our catchment areas.

3. BACKGROUND TO THE STRATEGY

The Western Cape is globally recognized as a biodiversity hotspot and offers a home to 66% of critically endangered ecosystems in the entire country. The mountain catchment areas in the Western Cape cover 9% of the province, but are the source of 60% of the water resources of the whole region. The spread of uncontrolled fires and alien plant invasion poses the biggest threat to the regions fynbos biome and water catchment areas.

Most of Western Cape's natural ecosystems have evolved with the influence of fire. Fire data suggests a marked increase in the size of fires as well as an increase in the frequency of fires in the province over the past 15 years. Historically, an average of about 80,000 hectares would burn each year. Under natural conditions, periodic veld and forest fires served to: reduce the unacceptable build-up of flammable fuels; create a mosaic of young-to-old natural landscapes and limit the occurrence of large fires by creating natural fuel-breaks. The tendency of fires to occur on decreased intervals (less than 6 years) in specific areas, like the Boland Mountain range, places a risk on the province's biodiversity and threaten the livelihood of certain species like Protea Stokoei.

Despite its natural and essential roles, fire has negative consequences when it conflicts with the public interest. Examples of negative impacts include: loss of homes, property and critical infrastructure; damage to water catchment areas; and destruction of commercially valuable timber. Smoke from veld and forest fires can also interfere with road and air transportation, inhibit tourism, and cause serious public health problems.

The potential cost and real fire suppression cost of veld and forest fires are not well documented. In 2011, the Western Cape Province alone spent approximately R 5 400 0000 on aerial suppression activities and various landowners as well as natural ecosystems suffered damage far exceeding that value. The indirect economic costs of fires e.g., lost tourism and the catchment integrity must also be taken into consideration. Large intense fires that develop in dry, hot weather conditions remove so much of the natural ground cover that soil productivity



can be reduced and soil erosion can lead to flooding, landslides, decreased water quality and a variety of other negative consequences.

By practicing integrated fire management, the Province can mitigate the trend by which the combined effects of fuel build-up and climate change exceed the capacity to suppress unwanted fire.

Continuing to only increase fire suppression tactics is not an option, as some areas in the province have already reached a point where even the most aggressive action would not be safe or effective. The only feasible response to this situation is to become much more innovative and proactive about management of veld and forest fires, while also maintaining a high level of suppression capability.

This strategy sets out a number of approaches that will result in more cost-effective and sustainable management of the benefits and threats of veld and forest fires in Western Cape.

4. PROGRAM LINKAGES

The framework for the WESTERN CAPE's Veld and forest fire Management Strategy recognizes that a number of organizations share responsibility for how fire will be managed on natural veld, agricultural land and forests across the province. The strategy focuses on the largely uninhabited natural landscapes, as well as areas where those lands interface with urban and rural communities. However, the strategy recognizes that veld and forest fire policies and activities need to be coordinated with broad public policy objectives, other fire and emergency services within the province, and with other landowners.

5. STRATEGIC SHIFT

In order to achieve the greatest benefits and least overall combination of cost and damage, it is broadly understood by veld and forest fire managers that to be both efficient and effective, a veld and forest fire management program must balance its investment in threat reduction activities and its response activities. Threat reduction actions include awareness programs, land planning, fuel management, and fire prevention. Response actions include pre-fire preparation of fire-suppression equipment and personnel, detection, initial attack, suppression, and post-fire rehabilitation.

One of the challenges to implementing this model in the Western Cape has been the separation between land-use decision making and fire management. In the past, the role of local and provincial government, with regard to Veld and forest fire Management, has primarily been one of response. Recent history shows, however, that fire risk and threats are increasing faster than the suppression capacity to respond.

Fire managers have been forced to prioritize limited suppression resources and utilize a modified response strategy. What is now required is the implementation of integrated fire management.



The changed operating environment for veld and forest fire management calls for a formalization and acceleration of the approach being taken by governments, their partners and stakeholders. A more integrated approach is needed, where management of fuels and both the benefits and risks of veld and forest fire are fully recognized and considered in decisions at all levels. This planned, deliberate approach while maintaining the capacity for an appropriate level of suppression response to undesired fires is essential for the province to meet its sustainable resource management goals, as well as its fiscal, public health and safety goals.

6. STRATEGIC OBJECTIVES

- Objective 1:** To establish a well-co-ordinated early detection rapid response strategy that is financially sustainable.
- Objective 2:** To develop and maintain a Knowledge Management System, which can be used by all spheres of government and other agencies involved with fire management that will ensure well informed decisions relating to fire and fuel load management.
- Objective 3:** To ensure the sustained availability of appropriate fire management resources so as to efficiently practice integrated fire management In terms of knowledge, personnel and equipment quality and quantity.
- Objective 4:** To ensure a sustained budget so as to address the long term integrated fire management activities which include alien vegetation management.
- Objective 5:** To develop and strengthen effective partnerships with relevant government bodies, agencies, and departments as well as private entities so as to support integrated fire management.
- Objective 6:** To ensure that integrated fire management plans protect our critical infrastructure, natural ecosystems and catchment areas.
- Objective 7:** To develop awareness strategies that will raise the awareness of the importance of integrated fire management at an organizational, municipal and provincial level to reduce the incidence of ignitions and property loss.