

The Garden Route in flames: Chapter VI - Ensuring that optimum use is made of prescribed burning application in the Garden Route region

A book by Dr Neels de Ronde



Photograph 9: The Garden Route region, excluding the Tsitsikamma, with the 'study area' demarcated with a red line. The white lines are the national roads to be incorporated.

The following article is the sixth in the series of excerpts from a book written by Dr Neels de Ronde, *The Garden Route in flames*. Dr De Ronde lives in the Southern Cape in South Africa and has done extensive research in the field of land management and wildfire prevention. Dr De Ronde gave permission to Fire and Rescue International to publish the book in the magazine in separate sections for the benefit of all forestry and wildfire managers, fire protection associations and land owners in order to gain insight and an understanding of the intricacies that form the basis of such extreme fires and how it can be prevented, highlighting effective fuel management and fire prevention measures.

6.1 Overcoming the resistance against the use of fire in the Garden Route region

Hopefully this writing can contribute towards the optimum use of prescribed fire and get rid of the negative and harmful fire exclusion policies settling in the region during the past few decades. By concentrating the application of this technique on the "as-yet" unburned areas of the region, the resident public can be getting used to this idea to save the Garden Route.

However, the people living in the region will have to be 'in' on the burning plans to be conducted, by making them aware of such action. Schools, the regional press as well as any announcements

regarding such burning, will have to be published before such burns are planned and applied.

Once the fire managers responsible for the prescribed burning programme have been identified, a selected few should be trained in such burning operations, which will have to be applied in two basic fuel types, namely (i) fynbos (non-infested as well as infested with weeds) as well as in (ii) industrial Pine plantations, while the planning staff responsible for the new fire prevention plans, will have to work in close cooperation with the fire managers who will conduct the burning operations.

The overall control over the regional fire prevention plan will have to be

preferably the responsibility of the Provincial Government, maybe as an extended task for CapeNature because they already control a lot of this land in the region in the form of Nature Reserves. Whatever is decided about this, SANParks also controls a significant portion of this land, so maybe this can be made a joint responsibility between these two organisations? Then we also have to consider the role of the local fire protection authorities? I will not discuss this issue further but it is clear to me that the Provincial Government should have the key role in this controlling body, in close cooperation with Central Government and future budgets will have to be allocated and provided for accordingly.

CapeNature is at present handicapped by inadequate funding and this will have to be changed should they get the key role in at least the control over the prescribed burning programme in areas not burned over by any of the two wildfires discussed here, at least for the interim. Future long term responsibility for the fire prevention programme can then be sorted out between the role players, at least before such burning is eventually extended into the wildfire areas, as soon as the fynbos has reached the optimum burning age (thus before 2030).

6.2 Drawing up, control and maintenance of the regional fire prevention plan for the Garden Route region

These issues become confusing because there are too many role players and every one of them wants to be heard and wants his fire protection plan ideas to be approved! I want to see an attempt to streamline the control over the regional fire prevention plan, by means of temporarily cutting out the areas that were burned over by the Knysna and Outeniqua wildfire areas, as there is at present no fire hazard there for a number of years and to concentrate on the region's area not having been affected by these two fires, so that we can for the interim focus on the fire prevention of the as yet unburned land in this region.



Photograph 10: Zooming in on the western study area section, with the main buffer zones now also added, using not only the road systems but also the topography linked to consider the routes for the main buffers and existing vegetation and the 2018 wildfire area (main buffers B1 to B6).

The above basically means that we have to focus on the Garden Route plateau as the only area unburned by serious wildfires, with the exception of the area burned over by the Knysna Wildfire during 2017. Thus looking at land under control of our nature conservation bodies, such as SANParks and CapeNature and then add to this the owners of the Pine plantations on the plateau (and portion of the Outeniqua Mountains still unburned) as the main ownership and management of the unburned land.

We are then looking at a percentage of > 75 percent of the land still not having been exposed to serious wildfires. To look at representatives of these main role players only for a start, could then be used to form a steering committee, with these members combined forming the representative body of control, with the Provincial and Central Governments leading?

6.3 Training issues

While some fire bosses have experience in prescribed burning of fynbos, I am not sure if there is any experienced prescribed burner in the region with experience in prescribed burning inside Pine stands. Here I strongly recommend that someone such as Ben Potgieter (based in Sedgfield but seldom at home) is consulted to assist here in practical burning training application burning in the Garden Route region, in Pine plantations as well as in Fynbos.

Alternatively, a few fire managers can travel to Sabie to join the York Timbers team there because they have a few excellent under canopy burning specialists in their service, which could assist. As February is their peak burning period, consult with them about an optimum date for such a visit. Safcol foresters can contact Annalize van Wyk for a suitable date for some practical experience, at Safcol Nelspruit. Such training sessions before attempting to burn under tree canopies, is not only strongly recommended but local burners from the Cape regions cannot do without such a training session because of the danger of using the wrong burning application methods for specific fuels and conditions.

I have drawn up this writing in such a way, that the planning managers will not only find a good introduction for each aspect of the methodology for the creation of fire prevention plans as well as maintenance but I have added a bibliography at the back of this book for further reference, which will cover more detail about specific aspects. For fire (application) managers, the book should be sufficient for use of fire prevention plans, etc but for them, practical application of fire-use is as important as for the fire bosses.

It is subsequently also highly recommended that they also attend at least one practical training

Rocket HEMS Bell 222 medical aviation simulator first in the world

With the first aero medical simulator in a Bell 222 in the world, Rocket HEMS is at the forefront of aviation medical training. The company built a medical aviation simulator in a real Bell 222 aircraft airframe, creating an environment as close to the real thing as possible.

Michael Dollenberg, procurement and logistics manager at Rocket HEMS and also full time flight paramedic, is the project leader and responsible for creating this training platform. "This is as close to the real environment as possible. We wanted to build a training platform where you can simulate the sound the engine of the helicopter

makes, the rotors moving, the limited space and the flashing with a strobe effect, giving the student a more realistic sense of medical patient treatment during flight."

Dollenberg, a flight paramedic with a history in engineering and tech, explains when you are a flight paramedic, there are all these stressors that are added once you start working. "They have a huge influence on your ability to function. We can now with this simulator, create electrical system failures, simulate a fire in the cockpit, create a gas leak. All of these are ways to help a student train for the real thing."

The Bell222 airframe they used is considered part of the Henley Air Fleet, the biggest fleet of Bell's in the world. The cockpit itself is an exact replica. All the possible usable components were taken out, so that the company has helicopter spares on the shelf, should their engineers need it. "It got to the point where we realised we have all these spare airframes and the aircraft will never fly again. So why not just use the frame? Henley already has a Bell 222 pilot training simulator, so we did the same from a medical perspective."

They are also busy adding high definition cameras inside and Dollenberg would be able to monitor

▶ session. Alternatively, there are people such as Ben Potgieter who can attend to such specialised burning programmes on contract. For other burning work, there are also local people available such as the Chuma Fire organisation, which specialises in grassland, fynbos and firebreak burning and who have practical experience to attend to such burning tasks.

6.4 Working strictly according to a fire prevention plan

As I have discussed earlier, such plans are vital for fire prevention work control and maintenance and detail yearly plans will have to be drawn up by sub-regions and then be controlled by the selected Government organisation, where I suggested the Western Province Provincial Government, preferably CapeNature. I realise that they, at present, do not have the financial ability (nor staff capacity) to take control of such tasks and some serious budgeting will be necessary for them to get involved in controlling the regional fire prevention plan.

Fortunately, CapeNature still have a staff core with the necessary experience to attend to the tasks of

developing, creation and maintenance such a regional fire prevention plan for the Garden Route region, by simply extending their existing fire prevention and conservation burning plans, with the added financial requirements of course. However, the decision-making readers may consider otherwise and I will not make this a "must" for the region. As long as this programme is attended to by dedicated managers

6.5 Assessing the 2017 and 2018 wildfire areas for fire prevention needs

As is clearly indicted on Photographs 9 and 10, the regional buffer zones proposed for the Garden Route region cover both these wildfire areas as well as the yet unburned land of the region. Where the Knysna wildfire area is covering a mixture of fynbos and Pine plantation land, the Outeniqua wildfire covers mainly fynbos-covered land.

The organisation responsible for the planning and development of the regional fire prevention plan can thus, quite rightly, request both CapeNature as well as SANParks to assist with the fire prevention plan implementation while the fynbos-covered land under their control recovers from the

wildfires. This is until such time when this shrubland can be incorporated with prescribed burning according to the regional fire prevention plan, which will be during 2030 earliest. This will allow them to complete the fire prevention attention on land under their control mainly on the plateau, as yet unburned for the interim period.

It thus appears that CapeNature as well as SANParks should be responsible for most prescribed burning on the Garden Route plateau area as yet unburned and to keep this up to date until at least 2030, when maintenance on this land should be minimal, though still very necessary. However, the attention of the 2017-2018 burned-over fynbos area will be ready for prescribed burning application mainly from the year 2030 onwards.

Both CapeNature as well as SANParks should also assist with regional buffer zone preparation on their neighbours' property, particularly if the owners of this land do not have the capacity to do so. Such cooperation will be necessary to ensure that buffer lines are completed according to plans. ▲