

Role-players unite to fight peat fire

Rick Marais

Working on Fire (WOF) is fighting a winning battle against an underground fire in the Onrus River that has been smouldering for the last five months, around 50 days.

This fire is the result of a devastating blaze that swept through the Hemel-en-Aarde Valley on 11 January.

Overstrand Fire Chief Lester Smith, says WOF, a Department of Environmental Affairs-funded Expanded Public Works Programme for job creation, came on-board on 1 May after the Overstrand Fire Department tried to fight the underground fire using traditional techniques.

On 6 June a site visit was made to the Onrus Peat Wetland area, where all the role-players, from WOF, Overstrand Municipality and Overberg District Municipality, to Enviro Wildfire and various landowners, met to discuss the way forward.

Martin Bolton of WOF, a key player in fighting the underground peat fire, related: "I was part of the team that fought the big peat fire in Indonesia in 2016, and I was part of the team that invented the Pakabomie. This is a pipe used to fight underground fires by pushing the pipe into the crust and filling each pocket of peat on fire with water.

"This is why we had to step in with the Onrus Peat Wetland fire, because the fire department's traditional firefighting methods were not working as the water could not penetrate the thick crust. I had two days to train a local team that is still busy fighting the underground fire."

Rob Erasmus of Enviro Wildfire has also played a pivotal role in these firefighting efforts. He supplied WOF with



The Working on Fire (WOF) team that has been fighting the peat fire for the last five months.

Photo: Rick Marais

thermal imaging images of the fire as it was burning. "As I switched the imaging on the drone from normal to thermal, you could see the entire riverbed that was on fire, it was a breathtaking view," Erasmus said.

He explained that the drone is used only when the sun is coming out, because that is when the surface temperature is at its lowest, and one can truly see how hot it is below the land's surface.

Jeanne-Marie Botha, Camphill School principal, said that the school has been closed since 11 January, and the children had to be moved to Bosko School. "Camphill's motto has always been to be in tune with nature," she said. "We believe the situation will be dealt with accurately, and everything will be right for generations to come after us. But I have to thank everyone who is involved in the project, and we hope we can return to normal next term."

Johan Montgomery, a local landowner in the Hemel-en-Aarde Valley, says it was frightening to see how big the flames were on 11 January. He said: "We were trying to protect a special harvest that

was identified as one of the top Pinot Noir ones ever. We lost a house as well, but what will the impact be of such a fire in the future. What can we do to stop it again? The positive side was to see everyone working together as one to fight the fire."

Tarron Dry, Environmental Officer at Overstrand Municipality, says these underground fires are extremely difficult to fight as each pocket is unique and has its own temperature.

He explained: "Each pocket is its own animal, and that is why we use the Geographic Information System (GIS) to track the fire and see it as it changes with each week."

According to Bolton, a peat fire feeds itself, and the surface temperature can easily be between 350 and 380 °C, and it can easily be four times that underneath the surface.

"Our teams are trained to fight this fire, they know where to walk and they have the right equipment," he said. "To date, we have not had any serious injury, and no-one has fallen through the surface yet. We will concentrate on keeping the

Interesting facts about peat wetlands

- Peat is soil that is extremely rich in organic matter.
 - Peatlands cover about 3% of the earth's land mass.
 - Peatlands are very rare in South Africa and cover only 1% of the total wetland area.
 - It is also important to remember that peat forms at a very slow rate. A good example is a peat basin of seven metres can take up to 6 000 years to form.
 - According to CapeNature, 1 m³ of peat has the ability to store up to 800 litres of water. The other interesting part of peat is that due to its high carbon content it acts as a natural purifier of water.
 - Living peatlands take carbon-dioxide by drawing it in from the atmosphere through plants and trapping it underground as carbon.
 - As soon as a wetland is destroyed methane is released into the atmosphere.
 - Peat fires can burn for great lengths of time and it is possible that they can smoulder underground and burn undetected for years or even centuries.
 - What makes South Africa so unique is that we have Palmiet wetlands. These are formed by Palmiet that grows in wetlands. These Palmiet wetlands have built up layers of peat.
- Palmiet wetlands occur mostly in the fynbos biome but can also be found in KwaZulu-Natal.

injuries to zero while fighting the fire," says Bolton.

Erasmus explained it is very difficult at this stage to guess when the fire will be dowsed. "We are going to do a follow up survey at first light on Thursday morning (today)," he said, "and we will have a better idea of the situation once this is completed."