Monitoring the 2019 grass burn:

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The purpose of monitoring:

The purpose of monitoring the area after a burn is to see the natural succession of the grasses and forbs (herbaceous flowering plant) over time, which will allow us to see if the burn was a success or not. The findings of monitoring will allow Management and Trustees to decide whether burning sections of grass is the right option to manage grass areas of the estate.

Monitoring should start with an inspection of the site before the burn, shortly after the burn is conducted and a follow up a month later. From here monitoring can take place at more spaced intervals of roughly 3 months. To put this in context, fixed-point photography surveys are conducted once a year or on some occasions twice a year, but always around the same period. This will show us how the area rejuvenates and changes according to seasons and rainfall. It is not necessary to conduct photographic monitoring every month as changes may not occur in that time span due to climatic conditions (rainfall, wind temperature etc.).

The Burn itself:

The burn was conducted on the 16th of October 2019 by the Southern Cape Fire Protection Association with help from the Riversdale Working on Fire team; Fransmanshoek Conservancy and members of the Springerbaai team. The block burnt was roughly 4 hectares in size. The purpose of this burn was to remove moribund grasses (old material) from grazing areas to spark the regrowth of grass, which in turn creates better grazing for the animals

To the right is an image of the fire being started and conducted by the team.

as this new growth and grass sword is far more palatable than the moribund grasses that preceded it. It is also important to note that grasslands naturally require fire to restart its succession from this climaxed state. Normally fire would start by means of lightning.

30 October 2019:

Shortly after the burn, rainfall events of 6mm and 7mm occurred. This rainfall lead to a quick emergence of the new blades of grass that would have geminated or resprouted due to this rain. It has also been documented that from September/October the grass tends to break its winter dormancy and starts its period of growth.

A photo taken shortly after the burn. One can see new green shoots coming through.

18th November 2019:

On the 18th November 2019, following rainfall of 35mm for the first half of November, another monitoring survey was conducted. This survey revealed that the rain had stimulated grass regrowth and a green tinge was present throughout the site. It was also observed that there was minimal suurvy regrowth in the area, and the only areas where grass was struggling were sandy areas adjacent to the many mole heaps.
Upon arrival at the site a group of Springbok and Bontebok were seen grazing on fresh growth. Sadly, December was a hot and dry month which pushed back the growth of the grasses.

On the next page is an image showing the green tinge on the site after the rains, one can clearly see all the green shoots.

7th February 2020:

January 2020 was an exceptional month, rainfall wise as the estate received 109mm of rain which was also well spread out. This means that the rain was able to soak the ground well and lead to an explosion of green shoots all over the estate. This resulted in a particularly good growth period as conditions were ideal. Various grass, herb and forb species were seen during this survey and most of them were moderate to good in grazing value for the animals. The abundance of rainfall also lead to an abundance of grazing across the Estate, which in turn took some grazing pressure of this section. During this time period, problematic weeds started showing up all over the estate, however there were virtually none at this point on the burn site.

Below is an image demonstrating the effect of the good rains on the burnt site.

11 September 2020:

Unfortunately, due to the Covid-19 lockdown, a survey was not done and upon resumption of work in June 2020, a lot of emphasis was placed on catching up the work that fell behind and the completion of other projects. However, after the successful burn of the renosterveld a survey was done again on this site. This survey reveals that the grasses have taken root and have formed a good soil cover. The height of the grass was roughly 15 to 20cm, and consisted mainly of couch grass, which is a moderate to good grazing grass and an excellent ground cover. The only Suurvy on site was existing larger mats that did not burn, and a few seedlings found on sandier patches. Smaller plants found in the grazing were also flowering due to continued average to above average rainfalls throughout the winter. During this survey, droppings of all the larger mammalian species were observed, thus indicating that the game is utilizing this section of veld to a fair degree.

Conclusion:

We intend to keep monitoring this site to fully observe the state of succession the grass undertakes and this in turn will help determine when the grass will need to be burnt again and serve as a benchmark/roadmap for the use of fire to manage grazing found on Springerbaai. It is important to note that most ecosystems are disaster orientated in Africa, and by conducting a controlled burn we aim to reduce the negative impacts that could be

inflicted by an out of control wildfire in our grasslands. Without fire or another form of disturbance, the grass will eventually either fall away or become extremely moribund.