On 2 January 2015, the Sampson Flat bushfire roared through Mount Bera Vineyards in South Australia, burning all of the vines to varying degrees.

This Adelaide Hills vineyard is on largely steep terrain, it is organic and the vines grow in rich red clay/loam.

Greg Horner owns and operates the vineyard and, after the fire, the main recovery advice he received was to completely rip out the vines and start again. Greg chose a different path, one that not only saw him harvesting in the first year after the fire, but also resulted in a complete recovery much faster and more cheaply than if he had started from scratch. These are the key lessons he learned.

‘There is always hope and, even if you can't get to things quickly, it's not going to make that much difference’ – Greg Horner
First response
Don’t rush to make decisions. Greg realised the vines looked worse than they were. Within 4 weeks, he started to see reshooting from the ground from vines that had only been planted 2 months prior, all the way through to 20-year-old vines.

To help prioritise his work load, Greg categorised the vineyard into the following headings and responses.

Nuked
In these areas, the fire was so intense that timber trellis posts burnt through and plastic vine guards were vapourised. The soil showed evidence of substantial heating 30cm below the surface. Many of these vines still re-shot and those with dead trunks were later cut off at the base. With hindsight, Greg now thinks an alternative option would be to cut these vines off at ground level immediately, assuming you have the time to do so.

Partially burnt
Greg developed the following rule of thumb for partially burnt vines:

- 50 per cent burnt around the circumference of trunk. These vines usually produced a full crop the following year. This depended how far up the trunk had been burnt.
- 50–75 per cent burnt around the circumference of trunk. This resulted in growth on the spur and the cordon no longer being viable. In these cases, Greg waited for a water shoot to appear at ground level. Two shoots were selected to replace the damaged trunks and these were simply trained over the existing damaged cordon for the next couple of years to reduce costs. The damaged cordon and trunk were then cut out as time and budget allowed. During that time Greg still managed to harvest a crop each season.

Grafted vines
Mount Bera Vineyards had plantings of Merlot rootstock grafted to Tempranillo and Shiraz. These were spur pruned and the above rules were applied when reviewing how much of the cordon and trunk had been burnt. However, they were all left till the following year for the vine to tell if the trunk was functioning by looking at the shoot length. Burnt cordons were cut back close to the graft so that a couple of buds were left to hopefully shoot and rewrap down. The vines that shot from the ground indicated that the trunk was not functioning and they were regrafted the following year.

Irrigation
Aside from a newly planted section of vines, irrigation could not be restored to the vineyard until the following season. Greg said his site helped in this regard, as the rich red clay/loam holds a lot of water deep down. Greg believes he would have needed to water earlier if the soil was light and sandy.

Equipment
The cost to hire contract labour to do the recovery work was not an option, so much of the work was done by family and the full-time property hand. Greg hurt his back using a chainsaw to cut vines off at the base. He found a lighter, safer and better alternative with a Black & Decker ‘Alligator’ battery-powered lopper. This made a major difference during the clean-up.

For more information, visit mtberavineyards.com.au/vineyard-recovery-post-bushfire