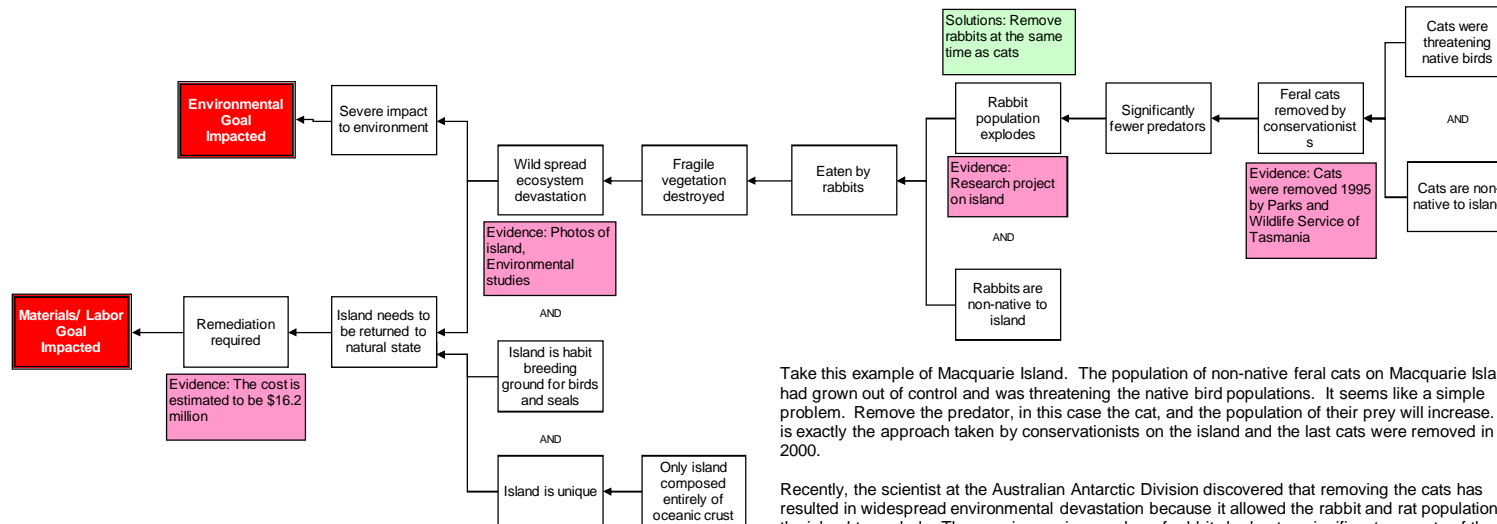


## Removing Cats Backfires on Macquarie Island

A thorough root cause analysis built as a Cause Map can capture all of the causes in a simple, intuitive format that fits on one page.

Even more detail can be added to this Cause Map as the analysis continues. As with any investigation the level of detail in the analysis is based on the impact of the incident on the organization's overall goals.

Sometimes, what seemed like a simple problem at first glance is really a much more complex issue. When performing a root cause analysis, it's important to understand all the causes contributing to the outcome, not just the most obvious one. When a solution is implemented it can have unintended negative consequences if the entire system is not well understood.



Take this example of Macquarie Island. The population of non-native feral cats on Macquarie Island had grown out of control and was threatening the native bird populations. It seems like a simple problem. Remove the predator, in this case the cat, and the population of their prey will increase. This is exactly the approach taken by conservationists on the island and the last cats were removed in mid-2000.

Recently, the scientist at the Australian Antarctic Division discovered that removing the cats has resulted in widespread environmental devastation because it allowed the rabbit and rat populations on the island to explode. The ever increasing number of rabbits had eaten significant amounts of the vegetation on the island, leading to major erosion issues. The increase in the number of rats is a threat to the bird population because they feed on young chicks. Obviously, the cats weren't the only cause that needed to be addressed if the island and its inhabitants were to be preserved.

The rapid increase in rodents was possible because rabbits and rats had no natural predators because they are also non-native to the island. Rats were inadvertently introduced to the island by ships. The cats were purposely bought to the island to help control the rodent population and protect the human food stores. Rabbits were also deliberately introduced to the island to serve as a food for sealers.

The solution to the problem needed to be more complex than simply removing cats. To restore the island and its native inhabitants to their natural state, all non-native species needed to be removed at the same time.

### Cause Map Detail Level



Copyright ThinkReliability 2008

