



MAKING ENVIRONMENTAL

decisions about mining applications is easier with the right research at hand, says Jo Stratford, Mining Manager for the Department of Conservation's West Coast Conservancy.

Jo met regularly with the research team who led a six-year, Ministry of Science and Innovation-funded project to better understand and mitigate the environmental effects of mining.

She says the decision-making framework developed by the team has filled a big knowledge gap for people in her position.

"The research results are easy to use and provide those of us who aren't scientists with a simple way of getting our heads around what issues are likely to arise for a particular proposal early on.

"The framework that we use pulls together and analyses all the latest information on issues such as acid mine drainage, so it's an invaluable resource for mining and ecological experts."

Jo says it is exciting to see New Zealand at the forefront of international best practice.

"The researchers have pulled together the best information from overseas and researched the gaps to provide a world-leading decision-making tool for responsible environmental management."



↑ Laura Haffert samples water at an abandoned mine site as part of her PhD project for the six-year research programme.

New Zealand is better able to address some of the most pressing environmental issues facing the mining industry as a result of a six-year research collaboration.

MAKING BETTER DECISIONS WITH WORLD-CLASS RESEARCH

A team of biologists, geologists, chemists and environmental scientists from CRL Energy, the universities of Canterbury and Otago, and the Crown research institute Landcare Research, have combined their expertise to fill knowledge gaps about environmental effects of mining on water quality and how to mitigate them.

The Ministry of Science and Innovation provided \$2.8 million funding to support the research that also attracted co-investment of \$4.1 million from industry partners and end users.

The knowledge that the research team gained about environmental, geological and biological factors in the water catchment areas that drain mines has been combined into a decision-making framework that helps predict the likely impact of mining operations.

Project leader Dr James Pope, from CRL Energy, says the framework, available free online, provides robust, scientific data to underpin the mining consent process.

"Our research provides information about the impact mining has on water quality which is the most difficult environmental issue related to mining. This project gives the mining industry, regulators and other stakeholders resources to ensure appropriate environmental management of their operations."

He says it also provides a faster, more transparent process for mining consents, giving everyone greater certainty.

Researchers worked closely with the Department of Conservation, mining companies, resource developers and regional councils and shared their findings to a wider audience

through a series of South Island workshops.

James says the research has put New Zealand scientists on the map internationally in the field of understanding the environmental effects of mining.

"There is keen international interest in our findings. We've also lifted the game significantly in terms of what we can do in New Zealand. We now have a world-class research team with excellent capability in this area."

The research completed to date relates to the South Island's West Coast and Southland but James says the findings could be adapted for the whole of New Zealand.