

century of mining, the cessation of tailings disposal would actually result in an *increase* in the dissolved metal concentrations present in the Queen and King Rivers and ultimately Macquarie Harbour. This was because the alkaline tailings and associated process water discharged by the mine neutralised some of the acidity in the acid drainage, and, once coated with iron-hydroxides, provided adsorption sites for a large proportion of the metals leaving the lease site. This considerably reduced the dissolved metal concentrations present in the rivers and harbour. An intensive monitoring program conducted by DELM confirmed that dissolved metal concentrations increased dramatically in both the river and the harbour once the mine closed.

3 Economic and social benefits of cleaning up the lease site, rivers and harbour

The remediation of the damage resulting from past mining practices would not only be important in reducing on-going impacts on the environment, but would also have a wide range of social and economic benefits. Remediating the lease site would enhance Tasmania's 'clean green' image and send a message to the local, national and international mining and environmental communities that Tasmania is serious about addressing the environmental impacts of mining. Although most mining sites in Tasmania presently comply with strict environmental standards and implement 'best-practice' techniques, the notoriety and public exposure that the Mount Lyell pollution has received over the years has cast a shadow over the Tasmanian mining industry as a whole. A real improvement in the Mount Lyell situation would reflect favourably on both the mining industry and the Tasmanian Government.

Socially and economically, a culturally sensitive clean-up of the lease site would allow the Queenstown community to continue to promote a local tourism industry based on the preservation of the bare hills (resulting from sulphur dioxide emissions during smelting) and associated mining history with no impact on the downstream environment. A cessation of pollutant discharge from Mount Lyell would also enhance the social acceptability of continued mining on the lease site in the broader Tasmanian community. This could be significant for the approval of future mining operations, such as the resumption of surface mining in a 'super-pit', as currently being investigated by CMT.

Further downstream, improvements in the aquatic ecosystem ranging from a visual enhancement of river banks through revegetation, to major improvements in water quality would allow Strahan to promote and expand ecotourism, which is presently a multi-million dollar a year industry. Visitor survey information from Tourism Tasmania indicates that presently 25% of all visitors to Tasmania visit Strahan and contribute more than \$18 million a year to the economy. The ecotourism focus of these visitors is evident in the survey results which indicate the major attraction in Tasmania is a visit to the Franklin-Gordon Wild Rivers National Park and the Gordon River cruise. Interestingly, in the group surveyed, a greater percentage of visitors to Strahan go bushwalking during their stay in the State (56%), than visit a casino (34%). The present length of stay in Strahan is only 1.6 nights; with such high interest in outdoor activities by the visitors, there is clearly room to expand ecotourism activities in the Strahan region.

The proximity of the King River greatly enhances the possibility of developing tourist activities which don't require one or more full days, unlike the Gordon River cruise or rafting the Franklin River. Because the forests lining the King River have not been severely impacted, restoring the health of the river would allow the development of ecotourism in the river catchment rather than the grim tourist attraction it presently is, and would complement

the proposed redevelopment of the Abt Railway linking Queenstown to Strahan. Because of the controlled flow in the King, activities such as river rafting or canoeing could be successfully developed, as could fishing, bushwalking or bird-watching. If improved ecotourism encouraged one-half of the visitors to Strahan to spend one additional day, it could increase tourist expenditure in the area by more than \$9 million per year.

Improving the amenity of the King River would also complement any redevelopment of the historic Abt Railway which links Queenstown and Strahan, and parallels the lower King River.

Significant improvements in water quality would also allow the expansion of sustainable aquaculture in the harbour. The present operators of salmonid farms in the harbour estimate that permanently improved water quality would result in a very significant increase in the industry, from about \$10 million per year to more than \$18 million per year. Expansion of the industry would include the establishment of a processing plant in Strahan and other land-based support industries. These figures only reflect fish farming activities, but improved water quality could also allow the expansion of the recreational fishing industry in the harbour. Historically up to 30 commercial fishermen worked the harbour, and if fish stocks dramatically improved in the harbour, this activity might once again become viable.

Socially, the anxiety the community of Strahan has experienced as a result of living at the 'wrong end of the pipe' would be significantly diminished if a clean-up was successful. A telephone survey conducted in 1992 showed that over 70% of Strahan's residents had concerns about the condition of the King River (De Blas 1994), and some residents have long held the view that Queenstown's economic development has been at Strahan's expense. A clean environment would allow the two towns to continue to develop harmoniously.

Significantly, the cessation of pollution entering Macquarie Harbour and the World Heritage Area would fulfil Australia's responsibility to protect this internationally recognised environment.

The *Convention Concerning the Protection of the World Cultural and Natural Heritage*, of which Australia is a signatory, states (UNESCO 1972):

Each State Party to this Convention recognises that the duty of ensuring the identification, protection, conservation, preservation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 (definitions of cultural and natural heritage) and situated on its territory, belongs primarily to that State. (Article 4)

and

To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavour, in so far as possible, and as appropriate for each country: ... (c) to develop scientific and technical studies and research and to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage. (Article 5)

Clearly, the implementation of remediation plans for the Mount Lyell lease site is a major step towards fulfilling Australia's international responsibilities under the World Heritage Convention. Macquarie Harbour is probably the only World Heritage Area listed for its natural environment values which could also qualify as a contaminated site due to the high concentrations of metals resident in the sediments. Although accelerating the 'natural' clean-up of the sediments is probably not an option, halting the influx of additional pollution to this environmentally sensitive region is an international responsibility which cannot be ignored.