destruction by human activity. From these ratings a list is being drawn up giving priority for protection. The information from this inventory is formatted so that it can be easily combined with information from the PNA programme, Wetlands Inventory and NZ Archaeological Association site register, when assessing areas of New Zealand for protected status.

Because earth science features in New Zealand cover such a diverse range of types and sizes and are threatened by a vast array of human activities, they require a broad range of management measures.

Wide Range of Features

Features range in size from volcanic mountains (Egmont National Park) to single erratic boulders (Te Anau scientific reserve). They may be glacial cirques at the top of the Southern Alps or fault scarps beneath Cook Strait; a vast underground cave network beneath Mt Arthur or a few square metres of unmodified soil beside the road in central Hawkes Bay; examples of destructional or constructional landforms (Ruamahunga landslide and Farewell Spit); the oldest fossils in New Zealand (Trilobite Rock, Northwest Nelson) or the type locality of the rare mineral tuhualite (Mayor Island).

They are threatened, modified or destroyed by almost everything we do to the land – forest clearance, afforestation, reclamation, erosion control, ploughing, housing subdivisions, recreational development, mining, agricultural practices, dams, roads, wetlands drainage, flood control and so on.

So much has gone that the time has come for us to identify those features and sites we must protect from destruction by these activities.

The best form of protection for many of our

Muriwai pillow lavas on the west coast of Auckland were threatened with complete removal in the early 1970s with the planned enlargement of the existing aggregate quarry. Several years of campaigning by local residents and the Auckland branch of the Geological Society brought all quarrying to an end and they are now protected within a Regional Park. These are probably the best displayed example of submarine pillow lavas anywhere in New Zealand. They were erupted onto the seafloor on the lower slopes of the Waitakere volcano, 16 million years ago.

Photo: Bruce Hayward