

Cypress Mine – Environment Court Decision - Extracts

Economic benefits

This case raises matters of fundamental importance to the New Zealand economy and for the West Coast region and Buller district in particular. [5]

In this regard we have already discussed the economic benefits of this development. This development would have local benefits in terms of employment. There is also the potential for an improvement in the situation at Stockton by importing some of the overburden from the Cypress Mine site (which has higher fertility than that at Stockton). [119]

The statutory documents recognise the importance of the coal resource in enabling those living in the region and district to provide for their wellbeing... At the District level, an objective of the District Plan is to enable people and communities to provide for their economic and social wellbeing through the efficient utilisation and development of mineral resources. [148]

Mr R N Robson, Manager of the Petroleum and Minerals Policy Unit in the Crown Minerals Group of the Ministry of Economic Development and a geologist, gave unchallenged evidence that the thrust of the District Plan towards the utilisation of natural and physical resources is quite definite compared with the plans of other regions and districts. While, as we outline, the statutory documents have a raft of other concerns, we consider that this local response to the various elements of the Act that are to be included in policy statements and plans ought to carry some significance in the final outcome. [150]

We accept that the development of the mine represents considerable enablement for the communities of the West Coast to provide for their wellbeing Mr Geoffrey Butcher, a consulting economist whose evidence was admitted by consent, estimated that during its first nine years of setup and operation the mine would generate about 50 jobs at the mine and 85-100 jobs in the Buller District. This would rise to more than 150 jobs at the mine and 350 jobs in the district, and 460 jobs in the West Coast Region in its final two years of operation. Over its lifetime the total outputs of the mine, excluding coal profit and royalties, (which are estimated to be between \$15 million (no profits) to \$300 million depending on coal prices, exchange rates and international transport costs) are \$492 million in the Buller District and \$562 million in the West Coast Region. The mine is estimated to increase employment by 718 job-years directly in mining and rehabilitation, and by 1,640 job-years of work in the Buller District and by 1,930 job-years of work in the West Coast Region. It would generate \$151 million of value added in the district and \$184 million of value added in the region. It would also generate \$43 million in direct household income, \$87 million of household income in the district and \$104 million of household income in the region over its life. [151]

The coal resource

While there are large coal resources elsewhere in New Zealand, e.g. the Waikato, Otago and Southland, these coals are of the sub-bituminous and lignite type. The inferior quality and metallurgical properties of these other coals precluded their use in the high value metallurgical and specialist coal markets for which the Cypress coal will be in demand. [13]

Furthermore, we accept that the coal cannot be mined by any other method, it being too close to the surface to enable safe underground mining. We also accept the efficiency of the

open cast method in terms of minimising the mine footprint within the sensitive ecological areas and seeking to maximise the coal moved, while minimising the impact on significant species. This has meant that some of the coal will not be removed but the countervailing consideration is that a proportion of the Happy Valley area will be maintained in its current condition. This achieves an accommodation of other significant matters to which we are to have particular regard under Part II. [121]

The proposal

This Court is also satisfied that from the very outset [Solid Energy] has recognised the importance of Part II issues in relation to the site and has obtained appropriate advice and designed its project, as far as possible, to avoid, remedy and mitigate adverse effects, particularly where matters the Court is required to consider under section 6 and 7 of the Act are involved. [63]

Witnesses of all parties agreed that there was no more than could be done by Solid Energy short of not removing the coal resource. We acknowledge that [Solid Energy] has already reduced its recovery of the coal resource to increase the ecological values retained particularly in Happy Valley. [64]

We must assume that the DOC and Riverwatch were able to conclude that the delicate integration of the various Part II matters required had been achieved to their satisfaction. [67]

Vegetation

We are satisfied that all of the expert witnesses agreed that Happy Valley area consists of red tussock wetland communities. [81]

We have concluded that Happy Valley cannot be regarded in itself as an area of significant vegetation under section 6(c) of the Act and more particularly neither can red tussock wetland area within the mine site. [82]

We have concluded that the area in question must constitute a wider area encompassing at least the area between the southern end of St Pat's Dam (just above the site to the north) and the margins of the Waimangaroa River to the south, the top of Mt William range to the east and the foothills of Mt Frederick to the west. [83]

Accordingly we agree with Dr Bartlett, and conclude that the Court must look at the ecological values both within and without the mine site in the area to understand the ecological values. [83]

There was some argument as to the extent to which this could be rehabilitated but it is nonetheless the subject of extensive conditions, the aim of which is to reinstate functioning ecological communities similar to that which pre-existed. Replication cannot be achieved practically. Dr Bartlett described it as impractical if not impossible. [122]

However in light of the proposal now to be replaced by direct transfer some twelve hectares of the Happy Valley wetland, we have a greater degree of confidence that similar communities may be produced. There are still uncertainties as to the survival of the wetland communities from the intermediate transfer and re-transfer to the site. From examples we have seen at Stockton, we are relatively satisfied that with proper care and supervision by a person such as Dr R C Simcock, transfer might be achieved with minimal disruption to the wetland communities. Because of the high rainfall, we doubt that the species are likely to die through dry-out if timing of the shifts is carefully planned. [123]

Overall we are satisfied that there will be an adequate tree cover within the next 35 – 50 years, particularly on the lower slopes. [125]

In respect of the wetlands we accept that there will be some lowering of values in the short to medium term. However with the direct transfer of up to half of the Happy Valley area and other portion of vegetation and with the extensive planting and weed control, we are satisfied that the values of these areas will be largely maintained. [141]

Our conclusion relies on the continuation of much of the wetland area without intervention as a result of the mining. To this extent the minimisation of the footprint of the mine has avoided some of these consequences on the wetland areas. In addition to this we are satisfied that the direct transfer of the red tussock wetlands will largely maintain the values of these areas. [142]

In respect of the balance of the mining area subject to other measures, we are satisfied that the requirement for similar hydrology for the subsoils, the proximity of the direct transfer wetlands and the preservation and re-installation of the basic environment is likely to see this area revert to red tussock wetland over the 10-15 years following rehabilitation. [143]

There will be changes to the ecosystem on the site itself and this is of some significance in the Happy Valley red tussock wetland. These effects will be mitigated by the rehabilitation programme but not avoided altogether. The proposal is not inconsistent with the objectives and policies of the regional policy statement to preserve the natural character of wetlands nor with the District Plan policy of controlling modifications to wetlands to protect their natural character. [163]

Habitat of indigenous fauna

Ms Walker made some suppositions as to [snail habitat] distribution in 1882. Having considered the evidence however, and the fact that the species was only first found in 1949, we have concluded that such extrapolation is not appropriate. [101]

Some of the mitigation steps are intended to have wider benefit beyond the immediate area, including that for the *patrickensis* and kiwi. The development of the extensive mitigation steps in this case may also have benefits not only for the nearby sites at Denniston and Stockton but for wider application throughout New Zealand. Knowledge will be gained particularly on revegetation, direct transfer of ecological communities and predator management. [120]

After careful consideration we concur with the evidence called for Solid Energy on this matter. In particular we are satisfied that if the management plans are put in place properly, with adequate funding, they will enhance the populations of both species. The main reason for this is that we accept the evidence given to this Court that there is already predation in the area and the species are declining in their present state. One witness described signs of deer, opossum and stoat and we accept that these are already predating on kiwi eggs and chicks and *patrickensis*. [128]

Secondly we accept the evidence of Dr McLennan that at 800 grams the kiwi are relatively predator-proof. Provided they can be kept safe and nurtured to this stage then they are available not only for released in this area but in nearby ecological districts and potentially elsewhere in New Zealand (depending on the success of the programme). Having accepted that there is more than sufficient territory for kiwis in the Ngakawau Ecological District, we are satisfied that provided the potted kiwi/roa are able to reach the critical weight of 800

grams they could then be released into this area and repopulate the district. In that regard we accept that the predator-proof area will achieve a beneficial outcome for juvenile kiwi. [129]

In this regard we accept that *patrickensis* snail will be protected from exotic species predation within the predator-proof area. Although we note that the predation control over the wider area will have benefits for *patrickensis* and kiwi generally, we are of the view that the major advantage of this development for *patrickensis* will be in identifying their preferred habitat and food types. On this basis we can see that an important programme for identifying and enhancing the habitat and food species for *patrickensis* may in fact benefit not only *patrickensis* but also kiwi in the long term. [130]

In this regard we believe that the proposed fauna plans will have some importance in respect of any further applications to mine the Brunner coal measures. In particular, if it cannot be established that the species can be enhanced through this type of fauna plan, it appears unlikely that a further consent would be granted. On the other hand, if it can be shown that the species can be enhanced then this may give valuable knowledge as to the dietary requirements of the species, preferred habitat and the means by which this can be created. If this was so, then there is no reason in principle why such findings could not be applied to wider areas of the Stockton Plateau, thereby re-introducing the species to areas currently outside their habitat range. [131]

We have also concluded that the lowering of predators generally within the area and the predator-proof area will bring about an overall reduction in the predation of both kiwi and *patrickensis* in the short to long term. Combined with the other management plan steps, including identifying preferable habitats and food sources for *patrickensis*, we have concluded on the balance of probabilities that these programmes will be successful. In other words, that they will achieve both enhancement of the numbers and habitats of those particular indigenous species. [135]

Cultural issues

We acknowledge that there is particular concern as to the potential ongoing exploitation of coal on the Stockton Plateau and also as to what remedial action will be taken in respect of those areas already mined. Having said that, we acknowledge that Ngati Waewae are interested in maintaining dialogue with Solid Energy and entering into partnership with them in respect of the area. We were encouraged by Mr Pizey's evidence to this Court that Solid Energy has the same interests and has been actively pursuing this issue with Ngati Waewae to date. [106]

Having heard the evidence, we are satisfied that Solid Energy has properly recognised the manuhenua and kaitiaki of Ngai Waewae in respect of this area and is still actively engaged in seeking to resolve issues. [108]

In respect of cultural matters Solid Energy has engaged in a proactive discussion with Ngati Waewae and Ngai Tahu for some considerable time. A good level of trust appears to have been built up between the parties. Although this does not derogate from Ngati Waewae's fundamental concerns with the exploitations of this area, we consider that the proposed condition to create a Cultural Liaison Plan and actively engage in dialogue with Ngati Waewae and Ngai Tahu is a clear recognition of the relationship that the hapu, their culture and traditions have with this land, its water, sites and taonga. [144]

Landscape

Having regard to the differences between the experts, we have had to reach our own conclusions as to whether the area constitutes part of an outstanding landscape or outstanding natural feature. To that end we had the benefit of a site visit and a helicopter visit over the general area. The area did not immediately strike us as outstanding, and we have concluded that in the context of the Buller District and West Coast Region it is not outstanding. [112]

Although we accept that some sub-units of the landscape have very high values, overall we are not able to conclude that these are outstanding landscapes or outstanding natural features. [116]

There are a number of examples around the Stockton Plateau where one can see the evident workings of mining which have been overtaken again by natural vegetation. We accept that this makes the area of historical interest to visitors and tourists. [137]

In part there will be a change from an interest in this area as a natural resource to a physical resource, possibly as a heritage landscape. [138]

As we have already discussed the mining area is only a small part of the overall landscape of the Stockton Plateau. Even in the views from Mt Frederick towards the site, the mine would only form a small portion of the view. Overall we have concluded that although there would be some derogation from the value of the landscape and its natural features, this derogation would be small in the context of the entire view and features available. Overall we consider that the value of the significant vegetative area to be set aside (that being the approximately 1,600 hectares we discussed earlier in the decision) will be maintained. Although we accept that there will be lower values for the Happy Valley red tussock wetlands communities, the direct transfer of at least half of this area satisfies us that the overall values of this area will be maintained at a relatively high level. [139]

Water Quality

A key consideration in the mine design and operation has been to control the potential for acid rock drainage (ARD) from the large quantities of potentially acid forming overburden that will be removed. [24]

Because it is a "green fields" project the Cypress proposal offers different and better opportunities for managing and controlling activities to minimise ARD and its effects. [25]

Because of the potentially high environmental risks that would result from failure of overburden structures, the Court went to some lengths to question witnesses about the robustness of the designs and the monitoring conditions attached to them. We note that the embankment has been conservatively designed. [168]

We conclude that the proposal will comply with the policies of the Policy Statement and Regional Land and River Plan which seek to avoid, remedy or mitigate adverse effects on water quality. It will meet those policies of the Regional Land and River Plan and the Regional Water Plan which seek to avoid, remedy or mitigate the effect of activities having the potential to cause acid-rock drainage and require discharge to be controlled to keep pH levels and concentrations of heavy metals as close as possible to their naturally occurring levels. The proposal will satisfy the requirement of the District Plan to promote land practices which maintain water quality. [175]

[178] We conclude that the temporary alterations to water courses will not have a significant adverse effect on water quantity and therefore satisfy the relevant policy of the District Plan.

Stockton Operation

We accept the evidence of Solid Energy that it is taking a responsible approach, within the broad mandate of its mining licence, as to its operations on the Stockton Plateau. We saw evidence that Solid Energy was seeking to improve the existing situation at some considerable expense to itself. This includes reshaping many of the existing overburden stockpiles at Stockton to achieve a more natural shape and continuing with revegetation, notwithstanding that it is not directly a requirement of their mining licence. [118]

Conclusions

We conclude that a variable bond as now proposed more accurately reflect the actual risk on a default by the consent holder at any particular time. Thus we conclude (particularly as the issue was not in dispute) that should consent otherwise be appropriate the consent should include Solid Energy's proposed bond conditions. [54]

The application of section 5 involves a broad overall judgment of whether a proposal will promote the sustainable management of natural and physical resources, an approach which allows for comparison of conflicting considerations and the scale and degree of them and their relative significance or proportion in the final outcome. It follows from this that sections 5(2)(a), (b) and (c) are not absolute requirements. We need to consider the degree to which they are met and the extent to which that is adequate or appropriate in the context of each case. What is adequate, or appropriate will necessarily depend, among other things, on the significance of the enablement of people and communities afforded by the proposal. [195]

In reaching our conclusion we have had to consider the likely success of the various management plans, particularly those relating to the rehabilitation of the site, patrickensis and kiwi. We preferred the evidence of the applicant's expert witnesses that the various plans will meet their objectives. In doing so we have recognised that during the period of mining the values on the mine site will be adversely affected. However, having regard to the effect on the significant area as a whole and upon the habitat of patrickensis and the kiwi, we have concluded that these effects are acceptable. In doing so we have taken into account the management plans that are proposed, particularly for the enhancement of the wide area of significance, and the results anticipated from them. We also recognise the benefit of securing the agreed RAP as provided for in the draft conditions. [196]

In respect of indigenous vegetation we have been particularly convinced by the concession of Solid Energy at the conclusion of the case requiring the direct transfer of 12 hectares of red tussock wetlands to an intermediate site and then back onto the rehabilitation sites. That concession is of considerable moment to this Court and convinces us that the values on the rehabilitated site will in due course not be significantly devalued. We conclude the life-supporting capacity of the ecosystem will be safeguarded in the long term. [197]

In respect of the patrickensis and kiwi we consider that the management plans will achieve their object. We conclude the areas of indigenous flora and habitats of indigenous fauna will be protected in the long term and possibly enhanced. [198]

We keep in mind that section 5(2) is to enable people and communities to provide for their social, economic and cultural wellbeing. We conclude that a granting of a consent in this case would enable not only Solid Energy (and thus the taxpayer in general) but also people in the region and district. Without the substantial conditions. In reaching a conclusion that it is

appropriate to grant consent in this case, we have concluded that the comprehensive conditions proposed for the proposal with minor additions discussed appropriately recognise and provide for the matters under section 6, have particular regard to the matters under section 7, take into account the Treaty principles under section 8, and will appropriately meet sections 5(2)(a), (b) and (c). Accordingly we have concluded that there should be a grant of consent. [200]