

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of an application by Meridian Energy Limited for  
resource consents for the Mokihinui Hydro  
Proposal

**BRIEF OF EVIDENCE OF JAMES TALBOT BAINES ON BEHALF OF  
MERIDIAN ENERGY LIMITED**



## **1 INTRODUCTION**

- 1.1 My name is James Talbot Baines. I am a founding director of Taylor Baines & Associates and a specialist in social assessment.
- 1.2 I have undertaken training courses in Social Assessment, and have been a member of the International Association for Impact Assessment (IAIA) for the past ten years and the New Zealand Association for Impact Assessment for the past twelve years. Between 2000 and 2006 I was Chairperson of the IAIA's Social Impact Assessment Section, during which time the Section developed the most recent set of principles for the practice of Social Impact Assessment (SIA). During this time I have also been engaged both in New Zealand and in South East Asia to provide professional training in Social Impact Assessment and to develop Social Impact Assessment implementation programmes in Malaysia on behalf of the United Nations Development Programme.
- 1.3 In total, I have had nineteen years experience in applied social research and SIA work. This has included participation and leadership in several multi-year social research programmes under contract to the Foundation for Research Science and Technology, as well as a wide variety of consultancy contracts for both public and private sector clients.
- 1.4 Within New Zealand, my professional experience covers the application of social impact assessment in numerous parts of the country and across a wide range of proposals, including local government boundary changes, urban development plans, air quality plans, waste management facilities, prisons, mall and supermarket developments, port developments, casinos, marine farms and energy infrastructure developments.
- 1.5 Of particular relevance to this hearing, I have in the past few years appeared as an SIA expert at hearings for a hydro-electric proposal on the Wairau River in Marlborough and for two wind farm proposals, one in the Manawatu region and one near Wellington.

- 1.6 In addition to my training as a social assessment specialist, I hold a Bachelors Degree with Honours in Chemical Engineering from the University of Canterbury and a Post Graduate Diploma in Teaching from Wellington Teachers Training College.
- 1.7 I have in the past been called upon as an expert witness in a variety of settings including resource consent hearings, appeals to the Environment Court, and hearings before the Local Government Commission and the Casino Control Authority.
- 1.8 I confirm that I have read the Code of Conduct for Expert Witnesses (Rule 330A, High Court Rules and the Environment Court Practice Note) and agree to comply with it. I have complied with it in the preparation of this statement of evidence.
- 1.9 I have been involved in the following work in relation to Meridian Energy Limited's ("Meridian's") Mokihinui Hydro Proposal ("MHP"):
- a. Social Impact Assessment, April 2008,
  - b. Response to a s92 request, April 2008.
- 1.10 I have also read:
- a. the reports or statements of evidence of other experts giving evidence on behalf of Meridian relevant to the preparation of this statement, including:
    - i. Rob Greenaway
    - ii. Ron Fleming
    - iii. Peter Rough
    - iv. Andrew Craig
    - v. Ian Jowett
    - vi. Peter Amos
    - vii. Andrew Whaley
    - viii. Cliff Tipler

- b. the submissions written by residents of Seddonville, Mokihinui and the coastal settlements of north Buller District;
- c. the survey report on the results of the survey of West Coast and Buller District residents carried out by UMR Research during June 2008;
- d. the Section 42A report prepared on behalf of the West Coast Regional and Buller District Councils by Ms Dianne Buchan of Corydon Consultants Ltd;

and I have prepared my statement of evidence in reliance on these materials.

## **2 SCOPE OF EVIDENCE**

- 2.1 I have been asked by Meridian to prepare evidence in relation to the actual and potential social effects of the MHP.
- 2.2 My evidence today draws on the documents listed above, particularly the SIA report, and indeed relies on them, since they contain much more detail than I can present here verbally.

## **3 SUMMARY POSITION**

- 3.1 As with any major project, there is a mix of positive and adverse social effects, which differ from one community to another and are experienced by different groups, depending on location.

- 3.2 The shorter-term construction-related social effects will require vigilant and sustained management effort to ensure that certain households and communities do not experience unacceptable levels of adverse effects.
- 3.3 However, overall the social impact assessment for this proposal concludes that the long-term cumulative social effects of the MHP are generally significantly positive and enabling for communities at all geographic levels - from the immediate host community of Seddonville, to the coastal communities of northern Buller and residents and businesses in the wider Buller District, as well as electricity consumers and recreational enthusiasts further afield.

#### **4 THE PROPOSAL**

- 4.1 I confirm that my evidence is based on the project proposal as described in the Assessment of Environmental Effects.

#### **5 THE ROLE OF SOCIAL IMPACT ASSESSMENT**

- 5.1 The role of SIA is influenced both by the express purpose of the Resource Management Act and by the principles of SIA practice.
- 5.2 The Resource Management Act 1991 (RMA) has a focus on effects and also a focus on promoting *“development and protection of natural and physical resources”* in a way which *“enables people and communities to provide for their social, economic and cultural wellbeing and for their health and safety”*.
- 5.3 Frequently, in my experience, there is an incorrect inference that ‘impact assessment’ implies a focus only on adverse effects. The RMA, however, explicitly states at s3 that the term ‘effect’ refers to the full range of effects, both positive and adverse.

- 5.4 The principles of SIA practice require community involvement in the assessment process. This is useful both to understanding the nature of the community or communities being affected, and to making professional judgements about the social consequences of the proposal. Community involvement is also important for validating the findings of the SIA and subsequently for monitoring change and participating in adaptive management decisions.
- 5.5 In some instances, SIA has the role of interpreting the findings of other technical assessments within a social perspective in order to draw conclusions about the likely social consequences. In the case of the MHP, this reliance on the findings of other technical assessments is most evident in relation to recreational activities, construction activities, visual and landscape assessment, river ecology, hydrology and sedimentation and erosion-related matters.
- 5.6 As a result, the SIA can provide a mechanism for 'integrating' a number of discrete, technical assessment activities, as well as a basis for establishing a dialogue between the applicant and the affected communities.
- 5.7 In the case of the MHP, the SIA work played an integral part in developing the relationship between Meridian and the local community. The early SIA scoping enquiries established the level of community interest in forming a Community Consultation Group. On this basis, I was able to recommend strongly to Meridian that they proceed with such an initiative. That Community Consultation Group has met on half a dozen occasions during the past year, as described in the evidence of Mr Evans. I will be recommending later in my statement that such a community liaison mechanism be maintained, as a condition of consent, to enable the local community's on-going participation in monitoring and adaptive management decisions relevant to the social wellbeing of local residents.

5.8 I note that a Cultural Impact Assessment was prepared by Te Runanga o Ngati Waewae, with the result that such assessment was explicitly excluded from the scope of this SIA.

## **6 APPROACH AND METHODS FOR THIS SIA**

6.1 The analytical framework used in this SIA is based on a consideration of the elements which contribute to social wellbeing. A conceptual framework, which has been adopted in a range of other SIAs and social research contexts in New Zealand in recent years, comes from social indicators work in the Organisation for Economic Co-operation and Development (“OECD”) and parallels closely the framework adopted by the Ministry of Social Development. The OECD work identified key areas of social life which shape well being:

- a. The state of physical and mental health;
- b. The quality of housing, shelter, neighbourhood and living place;
- c. Opportunities for formal education and lifelong learning;
- d. Opportunities for income, employment and the quality of working life;
- e. Opportunities for leisure and recreation, time to enjoy them, and access to quality outdoors/open space;
- f. Access to public facilities, transport, communications, and access to goods and services;
- g. The quality of the physical environment, a clean environment with aesthetic appeal;
- h. Influences on family life, social attachment, social contact, interaction and support;
- i. Influences on participation in community and society; including participation in organised groups and social activities; and
- j. Influences on personal safety, public safety, autonomy or freedom from too much risk.

This framework has been adopted by Taylor Baines & Associates for some years, and has been accepted by hearings committees and Environment Court panels on numerous occasions.

- 6.2 The SIA work for the MHP adopted a phased approach over an extended period of time, between February 2007 and April 2008. During this period, I made five visits to the project location to meet with individuals and groups.
- 6.3 The first scoping visit in February 2007 focused on the early identification of community issues and concerns about potential effects, as well as an indicative assessment of community development needs and the community's interest in the establishment of a liaison mechanism with Meridian, as I have just described. I was able to provide feedback to Meridian's project staff and to other consultants on these matters.
- 6.4 More detailed assessment work had to await the completion of various technical assessments, so that this information could be used in the assessment activities. Thus, the main assessment fieldwork took place in November 2007.
- 6.5 A summary of consultation activities is provided in Appendix 1 of the SIA Report. Overall, 70 people were interviewed prior to the preparation of the SIA report. Twenty nine of these were property owners in and around Seddonville itself; a dozen were from the coastal communities of Mokihinui, Hector, Ngakawau and Granity, with most of the remainder being from elsewhere in the Buller District and the West Coast. These included interviews with staff at the Buller District Council, Department of Conservation, business operators, Solid Energy, construction contractors, real estate agents, the Police, Buller Electricity, Buller District Health, gravel extraction contractors, Work & Income and Tai Poutini Polytechnic.
- 6.6 A large majority of these were face-to-face interviews, enabling the exchange of information such as maps, photo montages, and scenario data about the potential

construction workforce. A few interviews were conducted by telephone. Another 12 telephone interviews were conducted in response to the s92 requests for further information regarding construction employment and school services.

- 6.7 I was present and observed several 'open days' organised by Meridian at the Seddonville Hotel. I attended three meetings of the Community Consultation Group. The last such occasion provided any opportunity for these host community representatives to review and validate the provisional findings of the SIA, the draft report having been pre-circulated to all members of the Group.
- 6.8 The approach involved a mix of information-gathering methods and data sources. The two main sources of primary data were the collective experience and knowledge of the local residents and other key informants gathered during interviews, and the technical assessments carried out and reported by other experts specifically about the MHP. These were supplemented with statistical data from Statistics NZ (Buller District Regional Quarterly Review, June 2007, and the Census of Population and Dwellings for 1996, 2001 and 2006), as well as information from a local Seddonville history prepared by a Mr Harmon, information on the District's Long Term Council Community Plan, 2006, and comparison case information about similar projects and proposals.
- 6.9 Taken together, these elements of approach - phased, iterative and informed by multiple sources of data - allowed for building up knowledge of the host community before making an assessment of the likely social effects of the MHP. The participatory nature of the approach throughout its sequence of phases means that the SIA is focused on those actual and potential effects and issues which are considered most critical by the stakeholders involved. This has been a guiding influence throughout the assessment. In my opinion these characteristics of the approach have allowed for a robust and reliable assessment of the positive and adverse social effects which can be expected to accompany the construction and operation of the MHP. The assessment has also allowed me to recommend appropriate actions to avoid, remedy or mitigate the likely or

potential adverse social effects of the MHP. In some cases, this will involve monitoring and responding to issues if and when they arise.

## **7 THE SOCIAL ENVIRONMENT**

7.1 An understanding of the existing social environment provides a necessary backdrop against which to assess the potential social effects of the MHP. Section 3 of the SIA report records a description of the social environment prepared as part of this assessment, highlighting relevant trends and details for the immediate host communities of Seddonville and Mokihinui, as well as the coastal communities of Hector, Ngakawau and Granity and the wider Buller District.

7.2 In my evidence, I highlight the main points but also attempt to convey the salient characteristics of these communities.

### **7.3 Buller District**

7.3.1 Buller District, like the West Coast region of which it is a part, faces challenges to sustainable social and economic development. A key challenge is to retain its existing population and attract more residents. In the face of relatively high costs of living, the local population faces the costs of maintaining and upgrading infrastructure to contemporary standards, funded on a relatively small rating base. I understand that eighty-seven percent of the West Coast land is Crown-owned land, administered by the Department of Conservation, paying no rates to the local authorities.

7.3.2 Population trends have always been closely linked with the major industries of the District - traditionally mining and the cement works, forestry and farming, and more recently tourism - and also with the nature of the role played by Westport as an important service centre.

7.3.3 The relative shortage of work opportunities in the District in the past has encouraged young adults to leave the District to find work. Similarly, the relatively high cost of living

is a dis-incentive for some young people - early in their working life and in their family cycle - to remain in the District. There has been a notable trend in recent years for older residents of the District to retire to Westport.

7.3.4 The most pronounced sectoral employment growth for the District in the past intercensal period ('01-'06) has been in mining (+165jobs), property and business services (+85jobs), wholesaling and retailing (+65jobs), construction (+55jobs) and transport sectors (+40jobs). The local construction sector appeared to be fully committed at the time I completed the social assessment. Indeed, most observers interviewed concurred that the labour market relevant to mining and construction activities is tight, and is likely to remain so. However, the labour market situation must be considered fluid for the construction sector, given recent economic trends.

7.3.5 An important feature of employment patterns in the Buller District is the extent to which people commute to work. Westport is becoming a preferred residential location for people working further north in the District. This reflects the increasing numbers of mine workers who have chosen to live in Westport and commute to work. There appears to be an acceptance that livelihoods and quality of life depend on local resource development. There is also a familiarity with modern employment patterns (12-hour shifts and 4days on-4days off cycles) and long-distance commuting habits.

#### 7.4 **Seddonville and Mokihinui**

7.4.1 The Mokihinui River Valley has a long history of public infrastructure development and natural resource development, including the original road to Karamea, a branch railway line to Seddonville, and a port at the mouth of the River variously serving the coal mining, gold mining and timber milling industries.

7.4.2 For much of the year, the resident communities of Seddonville and Mokihinui are small (approximately 30 and 10 households respectively), but their populations swell during the whitebait season and over the Christmas/New Year holiday period. This is an

important time for external inputs to the local community, when local businesses and the two camping grounds do significant proportions of their annual business.

- 7.4.3 Mokihinui is increasingly a holiday location rather than a resident community, while Seddonville has experienced newcomers in recent years, a change from a more itinerant population to more settled families. Several houses in Seddonville have also been bought for use as holiday baches. Seddonville has a pub and associated dairy and motels, and a small camping ground in the old school. With the closure of the pub in Mokihinui in 2007, Seddonville took on more of a role as a community focus (although the pub has since re-opened in Mokihinui), and there appears to be a greater sense of cohesiveness between the residents of Mokihinui and Seddonville.
- 7.4.4 The Rough and Tumble Bush Lodge is a notable new business enterprise which opened in December 2006 a few kilometres upstream of Seddonville. Locals report a slight increase in traffic through the settlement as a result. Associated with this development was the creation of a rural residential subdivision - the Mokihinui Preserve - with eleven residential sections of varying size in dense native bush above the road to the Lodge. There have been only four houses built in Seddonville in the past two decades, but now there is a sense that after two decades, people are starting to move back in and starting to spend money as well. Nevertheless, there are a number of vacant sections for sale in the village and the bowling club has gone into recess for lack of members. Several locals interviewed also noted a number of people living *'fairly reclusive'* lifestyles in this out-of-the-way location.
- 7.4.5 Outdoor recreation for local residents tends to focus on the beach and the lower reaches of the river, although a small number of locals are in the habit of traveling up the Mokihinui Gorge for hunting, fishing or tramping. Roads in the settlement are used by young children on their bicycles as well as people riding horses.
- 7.4.6 Employment for local residents, apart from three local dairy farms, is spread across work at the mines or work in Westport, including Talley's Westport fisheries operation. A milk

tanker calls regularly each day, travelling as far as the Mulholland farm in Seddonville. At least 15 of Seddonville's permanent households have people working on shift work at the mines, with many of these living on 5-acre lifestyle blocks.

7.4.7 Children generally go to school in Granity (primary) or Westport (intermediate and secondary), although a few children in the area are home schooled.

7.4.8 In summary, the community of Seddonville has experienced a degree of re-vitalisation in recent years even though population numbers have not grown substantially. Residents value the relative peace and quiet of the Valley, but also the fact that it is no longer so 'remote'. A resilient community has growing expectations for their standard of living. They appreciate that the Mokihinui River is the gateway to somewhere special in the mountains, even though not many people - either locals or from further afield - are presently able to access this.

## 7.5 **Hector, Ngakawau and Granity**

7.5.1 These coastal settlements, which used to be the hub of coal mining communities, have experienced a lot of changes in recent years, including considerable downsizing of their resident populations, but also a significant proportion of people who are new to the West Coast. Principal drivers behind the fall in resident population are the retirement of older residents to Westport, a similar re-locating of much of the modern mining workforce who now tend to commute daily from Westport or other parts of the District, and the fact that new property buyers are not yet coming to live in the District. Some workers new to the mines do not tend to bring their families to begin with, if they are on a trial contract, hence the continuing decline in school rolls. Nevertheless, there appears to be a growing stream of people coming to this part of the Coast for the slower paced lifestyle.

7.5.2 The new generation of property buyers tend to have more capital compared to the previous influx of people on benefit incomes in search of cheap rental accommodation during the 1990s. The community is more diverse than it used to be, in both income

and values. Views towards environmental management reflect a balance, recognising the dependence of business, work and lifestyles on resource extraction activities as well as the long-term significance of protecting the natural environment for its ecological values, recreation and tourism, which is becoming more a feature of economic development in this area.

- 7.5.3 The de-population trend may be a threat to some services, such as the mail delivery, primary school, and medical centre. De-population also makes it difficult to sustain the wide range of social and recreational groups which have existed in the past, and the community facilities which they have inherited. There is presently considerable effort being put into consolidating and upgrading local community facilities, such as the Lyric Theatre, Judo rooms and the Visitor Centre/Resource Centre in Ngakawau.
- 7.5.4 The three adjacent settlements remain collectively the main focus of local services between Waimangaroa and the Mokihinui Bridge, including dairy and convenience stores, cafes, hotels, medical centre (Ngakawau Special Health Area), Volunteer Fire Brigade, ambulance service, the North Buller information/resource centre, primary school, postal agency. There is no garage or petrol station in any of these settlements, with the nearest being in Westport or Karamea. In some respects, the mines act as back-up for local emergency services.
- 7.5.5 These coastal communities have a variety of public water supply schemes, none of which complies with the National Drinking Water Standard. Generally, these communities have so far resisted calls to upgrade water supplies, due largely to the small ratepayer base and the relatively high costs of providing safe, reticulated water supply to widespread, low-density development.

## **7.6 Westport and Buller District**

- 7.6.1 Westport is the business and services centre of the District, and the base for the Buller District Council.

- 7.6.2 The Second Long Term Plan for Buller District sets out a number of community outcomes, indicative of the values and aspirations of the District community as a whole. Of particular interest in assessing the social effects of Meridian's MHP are the outcome statements related to Identity, Economy and Environment.
- 7.6.3 Relevant outcomes related to District Identity include an increased awareness of and participation in recreational activities, the provision of high quality community spaces and facilities, and the promotion of Buller history and environment.
- 7.6.4 Relevant outcomes related to Economy include providing an environment that supports the retention of current businesses and attracts new business and investment to the region, providing support for attracting and developing an available skilled workforce, and supporting sustainable, responsible development.
- 7.6.5 Relevant outcomes related to Environment include an appropriate balance between development and protection that promotes the diversity and sustainability of the natural environment, the provision of services and infrastructure that support the district's environmental goals, and a built environment considered to be attractive, sustainable and healthy.
- 7.6.6 Westport's interests in the MHP development relate largely to improved electricity supply infrastructure, future recreational opportunities, and employment and business opportunities during the construction period, as well as the longer-term attractiveness of the District to businesses and residents.
- 7.6.7 Many of the civic infrastructure improvements that will attract people to live and work in Buller District will have been completed by 2010, making the District more attractive to new residents seeking relaxed lifestyles and workstyles complemented by good quality civic infrastructure.

- 7.6.8 There are five schools catering to primary and intermediate-age children in northern Buller District, as well as Buller High School in Westport and Karamea Area School in the north. Given the trends in permanently resident population of northern Buller over the past decade, it is likely that schools throughout the District have considerable spare capacity.
- 7.6.9 Buller District Health indicates that the primary care services in northern Buller are at the limit of their capacity. Until recently, there were 6 GPs, all operating from the out-patients clinic at Westport hospital and supported by various nursing services and clinics at Karamea and Hector/Ngakawau. They are currently trialling a seventh GP and believe there is need for eight to provide an adequate level of primary care.
- 7.6.10 The Westport community enjoys a reticulated water supply which meets the national drinking water standard, and also a reticulated waste water system, which has recently been upgraded.
- 7.6.11 Buller Electricity Limited, the local lines company, is in Community Trust ownership. Consequently, Buller Electricity serves its community in three ways: providing electricity distribution services, providing jobs and providing financial contributions through its community trust fund. Its latest Annual Report states that the company is also in the process of finalising a sponsorship agreement with the Buller District Council for the new Sports and Leisure Centre.
- 7.6.12 Buller Electricity indicates that there has been no substantial growth in commercial and residential electricity demand in the past six years, due to the relatively high costs of supplying electricity to the District. This stagnant demand creates future issues for Buller Electricity, with conflicting trends for growth in future revenues and costs putting pressure on its ability to contribute funds to its community trust.

## 8 FINDINGS ON SOCIAL EFFECTS

### Positive social effects:

- 8.1 The potential for positive, long-term, cumulative social effects results from increased electricity generation within the District, and the creation of associated recreation opportunities.
- 8.2 The potential for positive social effects from the MHP encompasses the following -
  - 8.2.1 relatively more affordable electricity will enhance the attractiveness of the Buller District to businesses which have options to locate elsewhere, with potential consequences for employment and livelihoods;
  - 8.2.2 relatively more affordable electricity will free up disposable household income for other uses, such as food, clothing, rates/rent, leisure activities and the like, thereby affecting the quality of life for residents of Buller District, and having flow-on effects for other businesses in the District;
  - 8.2.3 local electricity generation will take pressure off the national transmission grid, reducing existing constraints on grid-maintenance activities and thereby reducing the risk of future supply disruptions for electricity consumers on the West Coast and in other northern areas of the South Island;
  - 8.2.4 stimulating local electricity load growth through downward pressure on electricity prices would increase lines company profitability. This profitability underpins the lines company's capacity to pay 'community dividends', which in turn provide financial support to individuals, local organisations and the maintenance of community facilities throughout the District. In recent years this dividend has been reduced.

- 8.2.5 the maintenance of the new electricity infrastructure (dam and transmission lines) will generate a small, certain and permanent number of long-term jobs (estimated by Meridian to be about 10 in number), and the workers can reasonably be expected to live in the District;
- 8.2.6 new and diverse recreational opportunities created by the proposed lake and the upgraded track through the Gorge - described to you in more detail by Mr Greenaway - will benefit a much wider group of people than those who currently enjoy this recreational setting, with social benefits including opportunities for personal recreation, maintaining physical health, appreciating heritage assets in the area, and additional local recreation-related or visitor-related business opportunities supporting jobs and livelihoods. The re-location and interpretation of currently inaccessible and poorly known historical artefacts will support these positive social effects. Overall, there is an opportunity for the Mokihinui River catchment to develop as a destination with front-country and back-country options;
- 8.2.7 the demand for construction workers, peaking at some 310, will create a period of employment and business opportunities for individuals and firms throughout the Buller District and further afield, supporting the livelihoods of a significant number of District residents over this time;
- 8.2.8 the demand for accommodation to house incoming members of the construction workforce will create a period of opportunities for some property owners, and spending by the construction workforce will benefit local businesses during this time; and
- 8.2.9 an influx of partnered construction workforce members creates the potential for enhanced social capital in District communities, with additional skilled and committed individuals contributing to existing community organisations and voluntary activities.

Adverse social effects:

- 8.3 The potential for adverse social effects associated with the MHP results from the location of the dam near to an earthquake fault line, inundation of the Mokihinui Gorge, the physical presence of the dam structure, construction activities particularly transport, and the influx of a construction workforce.
- 8.4 The potential for adverse social effects from the MHP encompasses the following -
- 8.4.1 construction of a dam in a seismically active area will create anxiety about the risk of physical dam failure for the safety of persons downstream, and the possibility that such anxiety might be disabling of the community of Seddonville. I have concluded that while there is a genuine interest in understanding the risks, there is in fact not widespread anxiety about these risks within the community. Furthermore, the likelihood of experiencing risks to life and property are extremely low, and highly unlikely to result in significant numbers of existing residents leaving or future residents deciding not to come to Seddonville, and thereby disabling the community.
- 8.4.2 inundation of the Mokihinui Gorge will preclude the use of this stretch of the River for white-water activities such as rafting and kayaking and therefore reduce the choice of locations for these activities. White-water rafting and kayaking will still be available in the North Branch. While certain and unavoidable, this loss would be experienced by a relatively small number of people specifically involved with white-water activities. The associated risk of adverse social effects for local communities will be insignificant since the greatest number of those currently enjoying these activities live out of the District, and those regional businesses which currently offer tourism services within the area potentially affected by the MHP have a diverse product base.
- 8.4.3 a reduction in local visual amenity values will be experienced by a few local residents due to the presence of a concrete dam structure, and by a few residents and users of the Charming Creek walkway due to the presence of transmission lines. Based on the evidence of Mr Rough and Mr Craig, and from the perspective of those living in

Seddonville, I conclude that the adverse social effects of this change in visual amenity are likely to be negligible and certainly not a significant deterrent to the building of new dwellings. The proposed dam will not be visible from sections in the Mokihinui Preserve. From the perspective of those who have built in the Preserve or may do so in the future, several factors will help to mitigate the visual effects of transmission lines: the use of poles not lattice pylons; property owners decisions on the precise location and orientation of their dwellings; and their ability to manage vegetation growth in climatic circumstances conducive to rapid growth. I would also recommend consultation with property owners (particularly those who have built dwellings by that time) over the precise location of poles. I conclude that visual effects from the proposed dam and transmission lines are highly unlikely materially to affect the extent of future development within the Preserve.

- 8.4.4 the potential for the proposed dam to affect river ecology could pose risks for local culture, customs, social relations, local businesses and community identity in Seddonville and Mokihinui, if there were to be a significant impact on the whitebaiting and fishing activities at the Mokihinui River mouth, and to a lesser extent the trout fishing activities on the lower reaches of the River. As I have noted in the SIA report, these activities, particularly over the annual whitebait season and summer holiday season, are major contributors to the social wellbeing of local residents and visitors alike, and have been for generations past. Several ecology experts have already reported their assessments to you and concluded that, so long as the flow regime in the river below the dam is maintained as close as practicable to the natural flows coming into the lake during the whitebait season, none of the important fisheries should experience significant detrimental effects. More details of this have been provided to you in the evidence of Messrs Bonnet, Hayes and Jowett. I have therefore concluded that a potentially significant adverse social effect is highly unlikely to occur, given Meridian's commitment to the flow regime recommended by Mr Jowett.
- 8.4.5 declining sediment supplies, obstructed by the proposed dam, will result in accelerated coastal erosion and potential scouring of the true left bank near the rivermouth in flood

events, causing future threats to private property but not to personal safety. It is my understanding that Meridian has been engaged with the Mokihinui Ratepayers Working Group (formed after a public meeting on 19 April 2008) to discuss options for addressing coastal erosion and Meridian's expected contribution to mitigating this effect in a satisfactory manner. I understand that these discussions have progressed to the point where almost all the ratepayers have signed their names to a Memorandum of Understanding with Meridian which confirms that agreement in principle has been reached as to the nature of the coastal erosion problem, the extent of the MHP's effect on the problem, the level of Meridian's financial contribution to mitigating the problem and three specific mitigation options which are currently under consideration. This MoU is being offered as the basis for acceptable and tangible consent conditions, and is discussed further in the evidence of Mr Evans. I also note that the Mokihinui Ratepayers Association has submitted in support of the MHP consent application.

- 8.4.6 a decline in sediment supplies is also likely to result in the cessation of commercial gravel extraction activities from the lower reaches of the Mokihinui River. Three companies currently have resource consents to take a total of 6,000 tonnes/year of gravel out of the Mokihinui River, comprising between 5% and 10% of their total annual gravel needs. Alternative sources of gravel for use in northern Buller will have to come from other gravel pit sources or the Buller River, resulting in increased cartage costs. However, all companies confirmed that this kind of future uncertainty is not unusual, and constitutes a minor business risk, with no implications for their employment levels. Thus, the cessation of gravel extraction from the Mokihinui River is not expected to result in adverse social effects in the District.
- 8.4.7 the influx of a substantial number of single construction workers has the potential to create risks of social disruption such as displacement and disorderly behaviour, in smaller communities within the Buller District. Several elements of mitigation can reduce these risks substantially, including the provision of dedicated worker accommodation for single workers, the adoption of shift-work patterns and possibly a requirement to vacate their accommodation when off work for more than two days, and active liaison between

local Police and out-of-district workforce contractors to reinforce a good-behaviour code amongst employees. With this range of mitigation, the potential risks of social disruption can largely be avoided altogether. Meridian has already indicated to me its commitment to providing dedicated workforce accommodation, along the lines discussed in the SIA report, and cognisant of the issues identified in the SIA report that will require attention in order to achieve an optimal site selection. These issues include the daily travel distance for construction workers, the size and social characteristics of the nearest communities, the physical infrastructure requirements and opportunities to leave a legacy of upgraded infrastructure, access for workers to social and community services, and the subsequent potential uses of the facility, noting both potential opportunities as well as long-term maintenance and management constraints.

- 8.4.8 the influx of construction workers will create demands on schools and medical services within the District which may affect the quality of these services for existing residents. The data provided in my s92 response confirm the findings in the SIA report that ample capacity exists across northern Buller Schools to accommodate the likely maximum numbers of primary and secondary school age children. The schools anticipate no resourcing problems, nor problems coping with ESOL (English for Speakers of Other Languages) needs or children from transient homes. Buller District Health (BDH) advised that the substantial increase in the number of households resident over a 2-3 year period would require additional resources if a decline in service levels to existing residents is to be avoided. BDH also advised that the most important need for avoiding adverse impacts on levels of primary health care is for Meridian to signal well in advance the likely scale and timing of incoming workforce numbers, so that the DHB can develop appropriate strategies and access the necessary funding from the Ministry of Health in a timely manner. Meridian has confirmed to me that on-site medical services will be provided in the first instance by individuals appropriately trained in first aid procedures for industrial sites, backed up by procedures to follow in case of incidents requiring more specialist medical attention. It is my understanding that Meridian or its lead contractor will be responsible for arranging emergency evacuation services, placing no reliance on

local emergency services. The details of these arrangements will need to be set out in the Health and Safety Plan for the construction site.

8.4.9 the increase in construction-related traffic, particularly the number and size of heavy vehicles and articulated trucks, will pose risks of significantly reduced residential amenity for households in close proximity to the main construction traffic route, and increased risks to personal safety for residents and other users of the local roads, particularly Mokihinui Road. Noise, dust and vibration from heavy vehicles and the cartage and storage of potentially harmful materials are contributing factors. Taken together, and in the absence of any mitigation, these effects constitute a substantial risk of adverse effects on several elements of social wellbeing for people living along this stretch of road - residential amenity, personal health and safety, and livelihood. The responses encountered during the SIA work to the prospect of such impacts point to a general acceptance that these social effects cannot be completely avoided but they can be mitigated to acceptable levels, particularly in view of the fact that they are not permanent effects. There is a clear expectation that Meridian will take considerable practicable steps to reduce and minimise these adverse effects on local residents and to demonstrate good faith in its ongoing efforts to be responsive to their concerns. In this regard, I note that Meridian has concluded a signed agreement with the owners of the principal farming property in Seddonville. This agreement not only addresses the needs of the farming operation to maintain its viability, but enables road widening through Seddonville to be carried out in a way that will minimise the extent of physical changes to the roadside properties on the south-west side of Mokihinui Road as it passes through the settlement. The SIA report describes the range of mitigation measures needed, including those suggested by URS for road widening, strengthening, smoothing and sealing, the timing of vehicle movements, vehicle speed controls and the covering of vehicle loads. The SIA recommends additional mitigation arrangements in light of experience elsewhere. These include the establishment of driver protocols for drivers involved in the construction traffic; the continuation of a Community Liaison Group to complement other methods of communication with the construction contractors; the establishment of a formal complaints procedure; and a requirement for the construction

site manager (or similar senior representative) to live locally, i.e. in northern Buller, to enhance accessibility to construction management and to give locals confidence in the manager's responsiveness to local concerns.

8.4.10 the risk to human or ecological health from accidental releases of harmful materials such as fly-ash will be minimised by proper transportation and storage arrangements.

Dedicated workforce accommodation:

8.5 I note that the detailed planning and assessment of effects associated with a dedicated construction workers accommodation facility will occur if and when consents are granted for the MHP to proceed. However, the issues of potential social significance have been identified at this stage and outlined at paragraph 8.4.7 above.

## **9 MITIGATION AND ENHANCEMENT OF SOCIAL EFFECTS**

9.1 The concept of mitigating adverse effects needs little explanation. Mitigation initiatives serve to reduce the likelihood and/or the extent of adverse social effects to levels considered acceptable for the potentially affected parties. Some "mitigation" is built into the proposed project design - for example, the substantial reduction in heavy vehicle traffic resulting from the decision to quarry rock on site rather than cart rock into the site from existing sources around the District; and the re-construction and maintenance of the track through the Mokihinui Gorge.

9.2 Potentially positive social effects are similarly characterised by likelihood and extent. In cases where a potentially positive effect carries a considerable degree of uncertainty, it may be worth considering enhancement initiatives which serve to increase the likelihood and/or the extent of the positive outcome.

- 9.3 Examples of such initiatives to enhance positive social effects would include -
- 9.3.1 where electricity-related price effects are technically feasible, greater certainty of social outcome can be achieved through an undertaking by Meridian to pass on reductions in wholesale electricity price to its consumers, or by Meridian and Buller Electricity negotiating appropriate network connections and metering to take advantage of the opportunity for embedded local generation.
- 9.3.2 making the most of future recreation-related benefits may require pro-active lake management initiatives by the relevant agencies in order to manage potential conflicts between different uses, as noted by Mr Greenaway.
- 9.3.3 in order to ensure that the District gains its share of the potential employment benefits from the hydro construction activities, Meridian could take the initiative of directing its lead contractor to set up a pro-active employment recruitment effort, collaborating with employment and training agencies in the District and on the West Coast generally, and probably involving an active role for a recruitment company. Such efforts to promote local recruitment should not in any way prejudice the requirements for appropriate levels of skills and work-site experience. They simply represent a reasonable commitment to maximise employment opportunities for the district and region in cases where appropriate skills are available. As consent holder, Meridian may not be actively involved in this, but it can be pro-active in providing direction.
- 9.3.4 private-sector contributions to housing members of the incoming construction workforce, particularly those who come to live in the District and bring their families for the duration of the construction period, will be enhanced by timely information from Meridian to the District's property management sector on the scheduling of construction activities.
- 9.4 In some cases, mitigation or enhancement initiatives are important enough to be recommended as specific conditions of consent. This gives a coherent signal to all parties involved, not just to the consent holder. In my opinion, the mitigation proposed

for addressing construction traffic issues along Mokihinui Road, and with addressing Meridian's share of responsibility for resolving the coastal erosion issue come into this category. I note that in relation to the Community Liaison Group, the precedent already exists in the form of the Community Consultation Group.

9.5 I wish to emphasise the importance of a pro-active use of the Community Liaison Group (CLG) as a mechanism for addressing issues of interest to the community and the contractor during the construction period. I also wish to make clear that its scope of interest is not confined to managing traffic effects. Even though the SIA report describes the role of the CLG as including oversight of a formal complaints procedure, in other words a reactive response, the concept of the CLG as proposed is broader than that. It is intended to provide a local forum through which information exchange and discussion can occur as necessary in a pro-active manner between the construction contractor/consent holder and the local community. It is not intended that the CLG should be a body which simply receives information and reports. Hence the functions of the CLG can be described as follows -

- to build effective working relationships and mutual trust between the community and the construction project management;
- to promote the timely flow of information and the discussion of issues and options to address them;
- to oversee a pro-active Community Complaints Procedure, ensuring that appropriate responses to complaints are forthcoming and thereby maintaining the confidence of all parties in the effectiveness of such a procedure;
- to evaluate monitoring activities of interest to the local community during the construction period;
- to recommend changes to mitigation arrangements that might be appropriate in light of evolving experience.

## 10 COMMENTS ON SUBMISSIONS

- 10.1 I note that of the 28 submissions received from Seddonville and Mokihinui, there is an approximately even balance between submissions in opposition and those in support. Of the 10 submissions received from the coastal settlements in Northern Buller, twice as many support the proposed project as oppose it.
- 10.2 The issues and social effects raised have, by and large, already been covered in my evidence. The most common social effects raised in these local submissions concerned accelerated coastal erosion and the perceived risks due to locating the dam in a seismically active area.
- 10.3 The only issue raised in submissions which I have not previously addressed was the dam's log boom preventing driftwood (potential fire-wood) from ending up on the beach near the Mokihinui River mouth. Meridian's preference is for the logs to go over the spillway and proceed to the coast. Alternatively, the logs will be collected upstream of the dam and transferred manually to the bed of the river downstream of the dam, where they will be entrained in subsequent flood flows and eventually transported to the coast. In any event, I understand that the logs will therefore continue to be available for local use.
- 10.4 Relatively few submissions referred to potential traffic effects during construction. I interpret this to reflect expectations that these risks can and will be mitigated effectively, and the process managed in a responsible and responsive manner.
- 10.4.1 With the exception of the concerns expressed about earthquake risk, the issues were as likely to be raised by those in support of the proposed dam as by those in opposition.

## 11 COMMENTS ON THE RESULTS OF THE UMR SURVEY

- 11.1 I have seen the results of the survey of West Coast and Buller District residents carried out by UMR Research during June 2008. This survey is discussed in the evidence of Mr Eldred. I was struck by the consistency in the relative levels of support and opposition for the Mokihinui hydro proposal.
- 11.2 In particular, I note the following survey results, described in the UMR report -
- 11.2.1 Section 2.5 indicates firm support for the dam proposal at levels between 62% and 75% irrespective of the values for which the respondents rated the Mokihinui River highly (pleasant place, visual, recreational, historic, cultural);
- 11.2.2 Section 2.6 indicates firm support for the dam proposal at levels between 65% and 78% irrespective of the uses which the respondents currently make of the Mokihinui River (other recreation/tourism, fishing/angling, swimming, whitebaiting, kayaking/canoeing, rafting);
- 11.2.3 Section 2.15 indicates the reasons for supporting the MHP as security of power supply (33%WC and 31% Buller), the fact that the West Coast has very little generation of its own (21%WC and 19%Buller), and that construction brings employment/helps the economy (14%WC and 25%Buller);
- 11.2.4 Section 2.16 indicates the reasons for opposing the MHP as visual impact (51%WC and 57%Buller), the adverse impact on recreational uses (18%WC and 16%Buller), the intrusiveness of construction effects (14%WC and 18%Buller), and earthquake risk (11%Buller);
- 11.2.5 Section 2.19 indicates expectations that the West Coast will be better off if the MHP proceeds (60%WC and 62%Buller) and worse off (6%WC and 8%Buller);

- 11.2.6 Section 2.20 indicates increased support levels if people are told of the work that Meridian will do to upgrade tracks to enable better access to the upper reaches of the river and will enable the lake to be used for recreational activities and that there will be controls on water flows during the whitebaiting season (74%WC and 79%Buller);
- 11.2.7 Section 2.21 indicates the extent to which West Coast residents would like to see their electricity generated locally - 83% want to see more than half the area's needs generated locally.
- 11.3 In my view, the results of this survey strongly reinforce the general tenor of the findings and the overall conclusions of this SIA. The results of the survey show that support for the MHP amongst people on the West Coast generally outweighs opposition to it by a factor of between 3:1 and 6:1, depending on the values that individuals attribute to the Mokihinui River or the use they make of it.

## **12 COMMENTS ON THE SECTION 42A REPORT**

- 12.1 I have read the Section 42A report prepared by Ms Dianne Buchan of Corydon Consultants Ltd. The Section 42A analysis appears to me to be focussed mainly on the potential for adverse social effects, and the need for associated mitigation. In the context of Ms Buchan's reference to 'compensation' for adversely affected communities (her paragraph 3.2.11 and her Conclusions at pp.14/15), I believe it is relevant to acknowledge how the positive effects expected from the MHP are likely to be distributed across the District as well.
- 12.2 My overall response to reading the Section 42A report is that Ms Buchan and I are generally in agreement on most matters, a fact which I expect should give some further reassurance to the Commissioners that the social impact assessment is accurate and appropriate. However, I do take issue with Ms Buchan over a few points.

- 12.3 Regarding the likely social effects of construction traffic we are in general agreement.
- 12.4 Regarding mitigation of construction noise effects from helicopters, bulldozing and blasting, Ms Buchan concurs with the draft consent conditions 58-61 but expresses the view that these will not provide sufficient mitigation. I wish to emphasise the importance that should be attached to the effective functioning of the proposed Community Liaison Group in providing a response mechanism for community input to further mitigation if necessary, and for monitoring of the same.
- 12.5 Regarding impacts on the local housing market during the construction period, we are substantially in agreement. However, I take issue with the idea of imposing a requirement that the dedicated workforce accommodation for single workers should be located within Seddonville or Mokihinui. I believe this to be a premature conclusion based largely on the proposition that post-construction use of the facilities would contribute an element of compensation to these communities. My view is that the location of such workforce accommodation should take into account other factors as well, as outlined at paragraph 8.4.7 above. I do not discount the possible relevance of post-construction use, and believe that this will be a factor that is assessed during the separate consenting process envisaged for the construction workforce accommodation facility.
- 12.6 Regarding the impacts of the fear of dam break, Ms Buchan reports that a total of 15 submitters expressed this concern, making it one of the most mentioned issues in the written submissions. By my count, six of these 15 submitters actually live in the immediate Mokihinui River Valley, although others may well be visitors to the area at times. I wish to point out that the social effects of the fear of dam break are not the same as the social effects of an extreme flood event in the Valley. To the extent that people are genuinely fearful of a dam break, this must be expected to be an on-going source of anxiety which may reduce over time, as noted by Ms Buchan (her p.13). Otherwise, people would be inclined to leave the area. The social effects of an extreme flood event do indeed depend, amongst other things, on the numbers of people likely to

be exposed to the flood risk. This is where I take issue with Ms Buchan's discussion on p.14. where it seems to me that she has mis-interpreted the relevance of the dam break report. The scenarios and dam break assessment described in the dam break report are intended for the purpose of determining the required standard of dam design. In order to create even the possibility of a catastrophic dam break event, the scenarios involve assumptions of what amounts to gross negligence by numerous people over many years. Ms Buchan's analysis of the numbers of people at risk (500 vs 92) does not alter the conclusion - that the Potential Impact Classification (PIC) for this situation is high, and therefore results in the need for the highest standards of dam design to be adopted. The mitigation proposed already involves the "*provision of an Emergency Action Plan appropriate for High PIC dams*". It is appropriate, as suggested by Ms Buchan, that residents in the communities of Seddonville and Mokihinui be consulted over this Action Plan, and that the community's awareness of the Action Plan be maintained over time. It is also appropriate, in my opinion, that the NZSOLD PIC process be adequately communicated and explained, as indeed occurred with the Community Consultation Group, so that it is not mis-interpreted, thereby creating the risk of unwarranted fears in the local community. These are both actions for which the CLG would be a suitable forum. A public meeting in Seddonville was called by Meridian on 30<sup>th</sup> June 2008 specifically to discuss the dam failure reports and associated risks and the PIC process.

- 12.7 Regarding additional measures for affected communities, I have no issue with Ms Buchan's general conclusion that the communities of Seddonville and Mokihinui will be the ones which experience the more significant adverse social risks during the construction period, and that the applicant should seek ways to maximise the effectiveness of mitigation measures, and to maximise the benefits these communities can gain from the project. I have concluded this myself in the SIA Report.
- 12.8 Regarding Ms Buchan's overall conclusions, there appears to be little disagreement between us. However, I repeat my earlier observation that Ms Buchan pays little attention to the project's potential for long-term positive social effects, and these are

important considerations in an overall assessment of whether this project will be enabling or not for these communities.

## **13 CONCLUSIONS**

13.1 As with any major project, there is a mix of positive and adverse social effects, which differ from one community to another, depending on location.

13.2 For the immediate host community of Seddonville, the long-term outcome is likely to be a consolidation and steady but not spectacular growth of the residential community. Given the broad base of community support, it is likely that this community will be positively enabled to enjoy an expanded range of livelihood and recreational options without adversely affecting existing core qualities of the place. However, in the short term, it is the issues associated with construction activities (particularly the traffic-related issues) which will have to be managed effectively so as to avoid the risks of potentially significant adverse social effects for this community.

13.3 For the nearby host community of Mokihinui, the central concern about protecting the future of recreational activities associated with whitebaiting, fishing and holiday making have been secured. However, the existing long-term problem of shoreline retreat will not cease to exist; in fact the MHP will bring forward the need for property owners and the relevant authorities to address this issue.

13.4 For the coastal settlements of Hector, Ngakawau and Granity, the MHP supports an emerging long-term trend towards local economic diversification by enhancing future tourism and holiday-making opportunities for a larger potential market, thus enabling these communities to make progress towards a more sustainable form of development. However, in the short term, it is the issues associated with accommodating the incoming workforce which will have to be managed effectively in order to enhance the potential opportunities and avoid the potential adverse social effects.

- 13.5 At the District level, the MHP will in the long-term support the resurgence of Buller District through more competitive and reliable future electricity supplies and substantial net gains in the range of recreational opportunities the District can offer its residents and visitors. In the short term, the MHP will create a significant increment and continuity in employment through the demands for construction labour and services. Given the level of support expressed by District residents in the recent UMR survey, the successful implementation of the MHP would reflect the sentiment that the West Coast should be allowed to determine the balance between economic development and environmental protection.
- 13.6 At a national level, the MHP would tangibly increase levels of renewable electricity supply, in line with central government policy and provide more accessible recreational opportunities for visitors to the District, balanced against ecological protection.
- 13.7 It is evident that a range of mitigation measures will be essential in order to ensure that potentially adverse social effects are either avoided altogether or reduced to a level that is acceptable to the communities concerned. Many of these mitigation measures have already been anticipated and proposed in various effects assessment reports, including the social impact report. Mechanisms for updating and adapting mitigation measures as the project proceeds have also been recommended such as the Community Liaison Group and the monitoring and reporting provisions of the Environmental Construction Management Plan recommended by URS.
- 13.8 Overall, the social impact assessment for this proposal concludes that the long-term cumulative social effects of the MHP are significantly positive and enabling for communities at all geographic levels - from the immediate host community of Seddonville, to the coastal communities of northern Buller and residents and businesses in the wider Buller District, as well as electricity consumers and recreational enthusiasts further afield.