

# *3<sup>rd</sup> Australasian Engineering Heritage Conference 2009*

## **Heritage Management at the Port Craig Sawmill Complex: Successes and Challenges.**

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**SUMMARY:** *The Port Craig sawmill, Te Waewae Bay, Southland, was the most technologically advanced sawmill in 1920s New Zealand, and one of the most ambitious sawmilling enterprises in NZ history, using high-output hauling and milling equipment from the United States of America. Today it is a heritage site including some intact original structures and a range of archaeological features, representing all elements of the early twentieth century timber milling industry in NZ. Successes in management to date have relied upon limited budgets, and the good will and hard work of the local community. The challenges that lie ahead require more money and support than that community can provide. The entire site is of national, if not international significance. This needs to be acknowledged and promoted to achieve the conservation of key features, to access the funding required, and draw the visitor numbers that will help sustain the area into the future.*

### **1. INTRODUCTION**

Port Craig is located on the western side of Te Waewae Bay, western Southland. It is set amongst regenerating lowland coastal mixed podocarp forest. The former sawmill and settlement site is on land managed by the Department of Conservation (DOC), formerly Waitutu State Forest, and now part of Fiordland National Park. The sawmill tramway roughly follows the alignment of a surveyed road through Maori land to the west of the mill site. The bulk of the sawmill workings, including branch tramlines and log hauler sites, were also located within this Maori land. The nearest town is Tuatapere, which sprang up around the turn of the last century to service the large number of sawmills that were progressing through the surrounding forests.



**Figure 1.** *Foveaux Strait showing the site location. (Land Information NZ, 1997, NZMS 262-16 Invercargill.)*

### **2. HISTORY**

The history of Port Craig has been well researched and recounted by Warren Bird, in his book *Viaducts Against the Sky*.<sup>1</sup> Some earlier work compliments Bird's publication. Mark Hanger's research for the New

Zealand Forest Service in the 1980s<sup>2</sup> provides a good overview of most of the Southland sawmills including Port Craig, and offers context and comparisons. Alistair McMechan's university thesis<sup>3</sup> explores the enterprise from an academic history perspective. More recently Michael Kelly has synthesised these and a range of other sources for a conservation plan for the Port Craig viaducts<sup>4</sup> and a registration report<sup>5</sup> for the New Zealand Historic Places Trust (NZHPT). The account that follows draws heavily upon these sources, and is only a very brief summary.

#### **2.1 Marlborough Timber Company**

The Marlborough Timber Company (MTC) began operations at Nydia Bay, Marlborough Sounds in 1908, and progressed on to mill in the Opouri Valley. Through good management and selection of a good logging area the company became relatively wealthy and successful.

By 1914 they had worked out the millable areas available to them in the valley, and were eager to take the company to a new level through the introduction of large scale logging technology from the USA.<sup>6</sup> Daniel Reese, one of the company directors, had visited the USA and been impressed with the logging technology. Paul Mahoney notes it is also possible he had seen it in action in NZ as the company's main competitor in the Opouri Valley, Brownlee, was using North American technology.<sup>7</sup> John Craig, the manager of the Marlborough based milling, and a company director, shared Reese's interest in the technology.<sup>8</sup> The other directors agreed to send Craig to see it in operation in the USA, and the visit further convinced him its application in New Zealand forests would bring great benefits to the company. Craig's enthusiasm soon won the idea the support of the whole directorate and a search began for a forest that could sustain the hungry technology. Criteria for a suitable area were that the forest available have high yielding trees, be extensive

enough to sustain the mill for many years to come to offset the relatively high costs of establishment; and that it have easy accessibility for the shipment of the timber and yet be isolated enough that other companies would be unlikely to move in and compete.<sup>9</sup> It was also important that the new area allowed the company to get around the size restrictions of State Forest licensing.<sup>10</sup>

## 2.2 State Forest management

Government control of logging from the 1870s through to the 1920s was characterised by a tightening of regulations, and increasing restrictions on the size of milling operations. Perceptions of forest as an inexhaustible resource and an enemy of progress were gradually re-framed as concerns arose about a looming timber famine. The Government approach was to slow the rate of logging and manage forests to ensure they could be harvested in the future, and there was a move to set aside areas for conservation in perpetuity in the form of reserves and national parks. From the early 1900s there were regulations to prevent monopolies over large tracts of State Forest, and a restriction on the size of licence areas to no more than three times the annual capacity of the associated mill. The government promoted smaller milling operations, and there was what some historians have termed an ‘anti-big business’ approach. Finally the State Forest Service was created to administer government control of State Forests, in 1921.<sup>11</sup>

## 2.3 Mussel Beach and South Island Landless Native Act lands

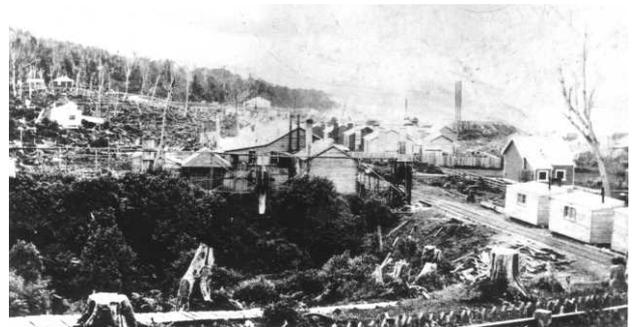
After investigating a few alternatives the MTC settled upon Mussel Beach at the western edge of Te Waewae bay, now known as Port Craig, as the best alternative. Among the greatest benefits of the location, along with the seemingly plentiful forests, was the proximity to large tracts of Maori land, and the opportunity this presented to overcome State Forest licensing restrictions. Bird gives the Mohaka River in Hawke Bay as one of the alternative locations investigated,<sup>12</sup> and it is interesting to note that there are extensive areas of Maori land there as well.<sup>13</sup> Bird indicates that this location was ruled out because of the other milling operations in the area.<sup>14</sup>

The Maori land upon which MTC set its sights had been allocated under the South Island Landless Natives Act (SILNA) 1906, the owners of which held little prospect of earning a livelihood from their isolated sections. It is hardly surprising then, that by the time the mill at Mussel Beach had been fully established the company had successfully negotiated cutting rights to 4000 acres, much of which was SILNA land.<sup>15</sup> The owners of only two sections between Mussel Beach and the Wairaurahiri River declined to sell cutting rights to the company.<sup>16</sup> The Forestry Department was concerned that the price paid to the SILNA owners should be equivalent to the going rate for State Forest licences, not only to protect the interests of those owners, but also to ensure that the surrounding State Forest was not

devalued, and recommended a rate of £5 per acre.<sup>17</sup> A survey undertaken on behalf of the Maori owners in the same year indicated that the initial estimates of forest yield were too high at 20,000 superficial feet per acre, and estimated them to be closer to 10,000. The price negotiated was therefore at a lower rate of between £2/10/- and £2/15/-.<sup>18</sup>

## 2.4 Establishment at Port Craig

Whilst the company awaited the arrival of the new milling plant from the Sumner Iron Works, Everett, Washington State, USA, work proceeded to develop the mill and settlement facilities at Mussel Beach from late in 1916. One of the company’s mill plants was relocated from Marlborough to provide timber for construction of mill buildings and worker accommodation in 1917.



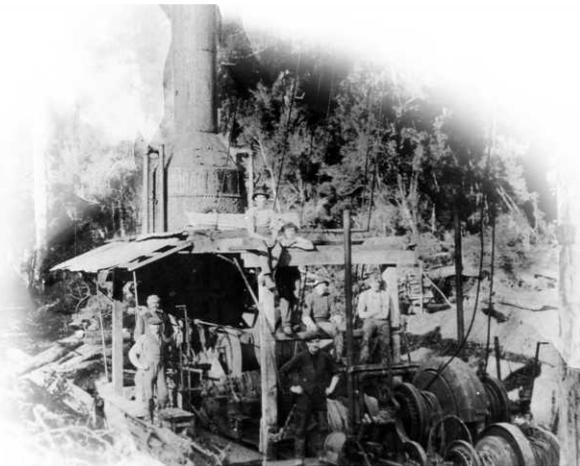
*Figure 2. Port Craig settlement at its peak. (NZ Forest Service photograph collection, copies held by Department of Conservation.)*

Among the other tasks that had to be completed at the outset was the construction of a breakwater (at immense cost) to shelter the wharf.<sup>19</sup> It was during the erection of the mill plant from Opouri that John Craig was killed in a drowning accident, and the mill and town were then named in his memory.<sup>20</sup> The building for the new mill equipment was constructed by a company builder, the installation of the equipment was overseen by representatives of Sumner Iron Works, and the mill was opened to great fanfare in September 1921. By this time all the worker accommodation, a cookhouse, company store, billiard room, social hall, library, and school had been constructed. The outlay of capital must have been extraordinary, and it is hardly surprising that by 1924 the company was struggling financially and took a major investment by Sims Cooper and Company to remain afloat.<sup>21</sup>

## 2.5 Lidgerwood Log Hauler

For the mill plant to reach optimum operating capacity it required a huge input of logs, far greater than could be efficiently supplied by conventional NZ log hauler technology. The eighty tonne Lidgerwood Overhead Logging Plant, an American-built log hauler, was the largest and most sophisticated hauler in NZ at the time the MTC imported it in 1918. It could haul logs on multiple lines, from up to 800 metres, and once in position could operate on a 360° spectrum with the

relocation of the spar.<sup>22</sup> Forest Department files on the mill licences comment that the reach of the Lidgerwood was twice that of its contemporaries, and that it would need licence areas of double the regulation size of 200 acres to operate effectively.<sup>23</sup>



**Figure 3** *The Lidgerwood Overhead Logging Plant. (NZ Forest Service photograph collection, copies held by Department of Conservation.)*

The Lidgerwood had the potential to extract logs from an area more quickly and efficiently than any other log haulers being used in NZ. However, the complex and expensive rigging system required specialist operators who had to be trained and while the forest at Port Craig was of high quality, the lower than estimated density of millable trees meant that the hauler had to be moved too frequently and a lot of time was spent relocating it, making it inefficient. As a consequence when the U.S. manufactured boiler failed, the construction not being as durable as those made in NZ, it was not economic to refurbish it.<sup>24</sup> During its operation the Lidgerwood was never able to supply the amount of timber required to operate the mill plant at its maximum capacity because of the lower than estimated forest density. In fact the highest monthly output ever achieved by the mill was 1814 cubic metres in May 1928, after the Lidgerwood had been mothballed, was still some way short of its capacity.<sup>25</sup> Four smaller NZ manufactured haulers were introduced to take its place, supplementing an existing three others, and together these were used for most of the logging beyond Percy Burn.<sup>26</sup> The decision was a wise one, for when the timber lots at the Wairaurahiri end of the tramline were resurveyed in around 1925-26 it was estimated that there was only 6-7,000 superficial feet of timber to the acre – a third of the original estimates.<sup>27</sup>

## 2.6 Tram lines

The construction of tramlines was an extremely costly component in the infrastructure establishment.<sup>28</sup> Sawmill tramlines were generally built to a standard which reflected their fleeting utility. However, at Port Craig the MTC had a long term vision of logging for

years, or even decades, over the many thousands of hectares of forest that lie to the west. They also needed a line durable enough to carry the weight of the eighty tonne Lidgerwood overhead log hauler, by far the heaviest equipment that had to travel the rail. For these reasons they invested heavily in building a very high standard of tramline with a 3'6" gauge – the same as NZ Railways – on squared hardwood sleepers, over a total distance of 14.6 kilometres. The additional 9.8 kilometres of branch tramlines were built to a slightly lower standard, with less finished timbers, but still at a higher standard than was normal for contemporary logging operations. For the most part the tramway roughly follows the route of a legal road alignment surveyed in 1901 as part of the survey of the SILNA blocks. However, it is seldom exactly on the surveyed line, and in some places it deviates dramatically to find terrain that more easily accommodates a suitable gradient, or in the approaches to a gully where a viaduct was required.



**Figure 4.** *A section of tram line during use. (NZ Forest Service photograph collection, copies held by Department of Conservation.)*

## 2.7 Viaducts

The construction of large timber viaducts enabled the tramway to cross four steep stream gullies without a change in gradient, avoiding many extra kilometres of benched tramline that would have otherwise been required to navigate the gullies.<sup>29</sup> Like the tramway, the specifications of the viaducts had to take into account the weight of the Lidgerwood Overhead Logging Plant, as well as the varying terrain of each gully and this is reflected in the characteristics of each viaduct. The exact timing of viaduct construction is not recorded. It is known that the tramway had reached the first, Sand Hill Point, by 1924, but construction may have commenced in advance of the tramway. The second and largest viaduct, Percy Burn, was completed in 1925 and reduced the builder, Chester Construction Company, to bankruptcy. The completion date for the third and fourth, Edwin Burn and Francis Burn, are not known either but it is likely that it was before 1926. Sand Hill, Francis Burn and Edwin Burn were built by Jim Kane, a former NZ Railways bridge builder, and a team of Company workers.<sup>30</sup>



**Figure 5.** Percy Burn Viaduct. (Crown Copyright: Department of Conservation, Te Papa Atawhai, Photographer: Wayne Baxter.)

## 2.8 Economic failure

Despite the investment of unprecedented levels of capital (or perhaps because of it) the mill struggled to make a profit.<sup>31</sup> Aside from a decline in timber demand and a steady drop in timber prices, in hindsight it is clear that the operation was capitalised to a level far in excess of the return the forest could provide, especially when it is taken into account that the forest yield was only half to a third of what had been estimated. In addition the operation seemed to be beset with expensive challenges, like the failure of the Lidgerwood overhead hauler, which required the investment of more capital. Another example is the effect of the breakwater which allowed the build-up of sand on the formerly rocky mussel beach, reducing the draft available at the wharf so much that it was not possible to berth there much of the time. This made it necessary to use shallow drafted lighters to transfer timber from the wharf to vessels anchored in the bay. This slowed the loading rate, added to transport costs, and further reduced the dwindling profit margins of the company.<sup>32</sup>

The innovative engineering solution, unsurprisingly based on an idea from the USA, was to implement an aerial loading system. This involved an extension to the wharf, construction of a substantial tower at the end, a series of permanent anchors and moorings for anchoring ships, and a complex web of cables that were used to load the timber. When working to its full capability the loading system was the fastest in the country, but it was not a sufficient panacea to save the mill.<sup>33</sup>

Finally in late 1928 the directors of the company made the very difficult decision to withdraw, and the operation was closed immediately with minimal notice to workers. Shortly afterwards Holdings Limited was set up by Sims Cooper, who had invested substantially in the operations, to take over the liquidated assets of MTC. Holdings Limited employed a small staff of caretakers to protect the assets, and made a successful application to take over the mill and tramway licences formerly held by MTC, based on hopes they could revive the operation and recoup some of the establishment costs.<sup>34</sup> In its final months the MTC had applied for a new licence area in the State Forest to the north of the SILNA lands, on the Francis Burn.<sup>35</sup> This was probably done knowing there was no way to raise the capital to cross the Wairaurahiri River, and this was the only means of accessing new forest. Holdings Limited took over the licence for this area as well and continued to renew all licences from 1928 until 1941. There was a brief revival of the milling operation during 1930, but the effects of the great Depression on timber markets doomed the attempt to failure. In 1938 a team was sent to salvage as much as possible, and demolish the remainder.<sup>36</sup> Finally in 1941 the Forest Service refused the last application to renew the licences, the Director of Forestry stating in his report *...I feel, however, that the Service has 'nursed' the Company long enough, and that the time has arrived when some action should be taken to terminate these rights.*<sup>37</sup>

## 3. SITE MANAGEMENT

Over the past fifteen years Port Craig has been regaining economic importance as a recreation and tourist attraction. This has been in no small part a result of the development of the Hump Ridge Track by the Tuatapere community, which has involved the construction of a new section of track up to the tops, creating a three day loop walk off the South Coast Track. The track development has been part of wider efforts to develop a new economic foundation for the town in tourism (beginning with the "Southern Scenic Route" promotion in the 1980s) in the wake of the decline in the native timber industry and the demise of the NZ Forest Service in 1987. Heritage values have been a key element of the visitor attraction at Port Craig and for the Hump Ridge Track, and there has been ongoing work to conserve and manage the features of the site complex by all the agencies and organisations involved.

### 3.1 Southland's Port Craig Viaducts Charitable Trust

Southland's Port Craig Viaducts Charitable Trust manages the four impressive timber viaducts with the support of the Southland District Council (SDC), Venture Southland, DOC, and NZHPT. The astounding efforts of the Tuatapere community from 1994 to raise funds for work on the Percy Burn viaduct are well known. The Trust has also been instrumental in subsequent projects to undertake further repair work on Percy Burn and the other viaducts. Trevor Butler's paper in these proceedings explores the work on the

viaducts in more detail. The paragraphs that follow focus instead on work that DOC has undertaken in managing the other components of the site: the tramway, sawmill and settlement site, and school.

### 3.2 *Sawmill, settlement and school*

The sawmill and settlement complex, including buildings, structures and archaeological features, is one of 73 sites on Public Conservation Land in Southland Conservancy that were identified for active management in 1991, because of their historic significance.



**Figure 6.** Port Craig School today. (Crown Copyright: Department of Conservation, Te Papa Atawhai, 2008, Photographer: Rachael Egerton.)

The school has a Category II NZHPT registration, is the most intact feature at the settlement site, and is also managed as a back country hut. A conservation plan for the building was prepared in 1992 by Chris Cochran.<sup>38</sup> Since then work on the school has included: re-piling, repairs to and re-pointing of the chimney, reinstatement of missing weatherboards and replacement of rotten ones, regular repainting, and the reinstatement of a lookalike water tank exterior to match the one shown in historic pictures of the building. Visitor and safety enhancements have also been undertaken. The open fireplace has been boarded up and a log burner, common in DOC huts, has been put in using the original chimney to house the flue. New stainless steel sink benches are in place, and part of the entranceway has been walled off to create a storage room.

In 1996 an archaeological survey of the saw mill and settlement site was undertaken by Jackie Breen, on contract to DOC. This was done to improve knowledge of the remaining site features so that their conservation might be better prioritised and planned for. A secondary reason was to provide sufficient information to guide the careful placement of any future visitor facilities, as by this time planning for the Hump Ridge Track was under way, and the Hump Ridge Track Trust was keen to locate new accommodation at Port Craig. A hut for Hump Ridge Track walkers has since been located within the former settlement. The survey revealed

archaeological remains of every aspect of the mill and settlement, showing Port Craig to be an extensive heritage landscape.<sup>39</sup>

Following the archaeological survey a specification for conservation work was developed for the range of features identified. Varying levels of intervention were recommended and have been completed. For some features no action will be taken, for others simple vegetation control is specified, and for a few a higher level of work is required to ensure conservation into the future. Some of the large timber piles and beams that once supported the timber sorting tables at the beach still remain, and timber preservatives are being used here to arrest the process of decay. The Priestman crane used on the wharf for loading timber was dug out of thick alluvial beach gravels over a period of years by conservation volunteers, with the bulk of the work being completed by Paul Clements with some of his Fire Service colleagues from Dunedin. Clements has also been instrumental in raising the chassis of the famous Lidgerwood overhead log hauler onto timber foundations, and metal preservation regimes are being implemented here. A large amount of vegetation removal and ongoing control has also been undertaken to ensure the conservation of these and other features around the site.



**Figure 7.** Baker's oven after completion of conservation work. (Crown Copyright: Department of Conservation, Te Papa Atawhai, 2005)

There are a number of brick structures including the baker's oven; domestic fireplaces and partial chimneys at the bush boss and mill manager's houses, and the boiler housing at the first mill site (where the mill plant from Opouri was installed). A specialist conservation work specification to repair these was prepared by Ian Bowman in 2001 and the work was completed in 2005 using national funding.

An interpretative walk has been developed to provide visitors with an opportunity to view the durable site features. There are some information panels, but most of the information is provided in a pamphlet. This is

complimented by panels and flip-books in the Port Craig School, and the Hump Ridge Track facilities at Port Craig. The interpretation prepared by Cathy Macfie in 2004 greatly enhances the visitor experience at the site, and the walk allows access to key features whilst drawing people away from more delicate parts of the site.



*Figure 8. Interpretation panel at the Lidgerwood chassis on the interpretative walk at Port Craig. (Crown Copyright: Department of Conservation, Te Papa Atawhai, 2005, Photographer: Rachael Egerton.)*

### 3.3 Tramway

Incremental work is being done to remove the leaf litter and soil build up in the water tables and in the cuttings of the tramway that leads away from the mill site to the mill workings, and which is now used by walkers of the South Coast and Hump Ridge tracks. This is more challenging work, because of the scale of the task and the very monotonous back-breaking nature of the labour. Sections of this have been done by Alliance Freezing Works employees, but also by volunteers on Conservation Volunteer Programme trips, and by DOC staff. During the winter of 2009 a trial was done in one of the cuttings to remove all the trees which were growing in the cutting wall, and on the upper berm of the cutting wall. It is recognised that although they are stable now, cutting walls will begin to fail as the trees get larger, and their weight and gravity combine to cause them to pull away large sections. The current goal is to target a few good examples of cuttings and undertake similar vegetation removal in coming years.



*Figure 9. A section of the Port Craig tram line during the removal of trees growing on the cutting. (Crown Copyright: Department of Conservation, Te Papa Atawhai, 2009, Photographer: Keri Tuna.)*

## 4. SITE SIGNIFICANCE

The Percy Burn viaduct, the best known feature of the site, is nationally significant in its own right, with IPENZ recognition and Category I NZHPT registration. The school has Category II registration recognising its national significance. However, the importance of the site as a whole is far greater than the sum of its parts. The significance of the Port Craig complex stems, in part, from the fact that it represents all aspects of early 20th century sawmilling and associated settlement, either as archaeological features and ruins or intact structures. Because pastoral development followed in the wake of much NZ timber milling, and the equipment and plant were usually removed to the next logging location, only a few sites retain this level of integrity. While the mill was typical in many ways, the history outlined above highlights that it was also exceptional. The big business and long term, large scale capital investment approach to the operation, the innovative solutions developed to meet the engineering challenges at the site, and the use of large scale US logging technology in many aspects of the operation all set Port Craig apart. These aspects of the history are represented at the site by features such as the Lidgerwood chassis and boiler, the tramway, and the four viaducts.

It is only by looking at all the components together that the overall significance of the site can be appreciated. Management has involved the respective agencies working together over the years, but the challenges ahead for the conservation of the site, particularly the viaducts and the tramway, mean management needs to become even more integrated and promotion of the significance of the site as a whole will be necessary.

## 5. CHALLENGES

Management has presented a number of challenges over the years, not least of which is the difficulty of working on structures on the scale of the viaducts in such an isolated location. In spite of the monumental efforts of the Tuatapere community they have only been able to just keep ahead of the most urgent repair work, and there has been no ability to move on to a rigorous regular maintenance programme. The lack of maintenance means that timber decay has proceeded unchecked, and this has precipitated some of the more recent repair works to the viaducts, as well as the repair work that is currently required.

A number of factors have contributed to this situation. Partly it is a result of the relative difficulty there is in obtaining funding for ongoing maintenance for heritage, compared to gaining funds for one-off repairs. This is a wide spread problem. The absence of a single conservation plan for all four viaducts, identifying all repairs required, and prescribing an ongoing maintenance programme has meant that this work has never been outlined, quantified, and prioritised into a work programme. Furthermore the management of the viaducts is an enormous expectation to place upon a community the size of Tuatapere. During the lifetime of Southland's Port Craig Viaducts Charitable Trust a large number of its members have passed away and not been replaced. Many of them have joined the Hump Ridge Track Trust to provide a marketable experience to go with the viaducts. It is an understatement to say that they are stretched very thinly.

The challenge of managing the tramway is slightly different. Agreements have been made with the owners of a number of the SILNA blocks by DOC to undertake track maintenance and by the Hump Ridge Track to allow for its use by walkers. Annual budgets are sufficient to maintain a back country walking track. However, the maintenance standards required for a tramping track are far less than those required to ensure the ongoing conservation of the tramway features – the very things that give the walk its character. Although the DOC has budgets for heritage management, they are very meagre. The work done at the saw mill and settlement, and the little which has been done on the tramway so far has been spread over a seventeen year period and has relied heavily on the efforts of volunteers. The cost and hours required to complete the work on the tramway are probably far in excess of all the work already achieved, and at current funding levels it is likely to stretch out for decades. The tramway is not suffering the immediate consequences of a lack of maintenance, but this will change before long as the features like cutting walls are broken down by tree falls. Bids for extra national funding to accelerate this work have been unsuccessful to date, as the same situation is faced at many nationally significant sites all around the country, some in even more dire circumstances.

## 6. STEPS TOWARDS THE FUTURE

Southland's Port Craig Viaducts Charitable Trust recently commissioned a conservation plan to identify ongoing management requirements of the viaducts, and establish a programme of repair and maintenance. This has been prepared by Chris Cochran, Trevor Butler (Frame Group), Michael Kelly, and Russell Murray. It was funded in part by a Lotteries Board grant, and partly by SDC and DOC. It quantifies the scale of the work required not just to repair, but also to maintain the viaducts so that ongoing deterioration can be minimised.



*Figure 10. Sir Neil Cossons, former chair of English Heritage, a great enthusiast of industrial heritage was very impressed with his Port Craig experience. Shown at the brick boiler housing of the first mill. (Crown Copyright: Department of Conservation, Te Papa Atawhai, 2007, Photographer: Brian Murphy.)*

The work required is no less daunting than all that has been achieved already, and will require substantial injections of finance, not only to address repair works, but to sustain the programme of ongoing annual maintenance. Such knowledge and planning are necessary for the fundraising challenge ahead and to ensure that the management approach is well informed and realistic.

However, good planning alone will not be enough. The levels of funding that are required are such that the outstanding national significance of the site as a whole will need to be acknowledged and promoted, so that fundraising can be undertaken at a national level. To assist with this the NZHPT have been reviewing the existing registrations, and a nomination report has been prepared by Michael Kelly for registration of the whole site as an historic place including the mill and settlement remains, the tramway and branch lines, as well as all four viaducts and the school. The registration process is now reached the stage of consultation with the SILNA land owners. After over 100 years of struggling to get very little benefit from their land allocations there is an understandable reluctance amongst the land owners to support registration which has much perceived if not real potential to 'encumber'

their land use in the future. Better understanding the concerns of the SILNA owners, helping them understand the effects and benefits of registration for the heritage and the potential benefits for the area, and coming to an agreed way forward for registration will take some time. It will also be necessary to strengthen the presence of the SILNA land in the telling of the Port Craig story. International recognition for the site may also be necessary to lift the fundraising potential, but this is an idea yet to be investigated. Lifting the national recognition of the site will also greatly improve the possibility of DOC obtaining sufficient funding to undertake the work required on the tramway.

While the Tuatapere community has put in exceptional level of effort over the years, the author believes the national significance of the site makes it a national responsibility. A publicity and marketing plan will need to be developed to maximise the benefits of national significance, and take support for the cause of conservation of the site to a wider, national audience. To do this there needs to be a greater demonstration of integrated management, and all the stakeholders need to work very closely together. Finally there is a need for a rejuvenation of the Viaducts Trust. The Trust has already begun to seek new trustees, and is looking to have a high profile figure on their trust board. It is also important that the trust has the support of qualified and experienced heritage professionals, including engineers, either as members or as “friends” of the Trust, to ensure that they have the expertise and guidance to support their implementation of the conservation plan. It is likely that some of this support will have to come from outside Southland.

Above all there is a real need for all the parties who have an interest in the area, including the Tuatapere Community and the SILNA land owners, to work more closely together on their common goals.

## **7. CONCLUSIONS**

Profiling the national significance of the whole Port Craig site is a key step to obtaining funding and support for the conservation of the viaducts, tramway, sawmill, settlement and school. To achieve this it will be essential to adopt a more integrated management approach involving all interested parties. Raising the national and international profile of the heritage and natural values of the area ultimately has the potential to increase visitor numbers, and bring economic benefits to the province, the local community, and the landowners, as well as ensure the heritage values are conserved into the future.

## **8. ACKNOWLEDGMENTS**

Thanks are due to Department of Conservation, Southland’s Port Craig Viaducts Charitable Trust, the Tuatapere community, Venture Southland, Southland District Council, New Zealand Historic Places Trust, SILNA landowners and Archives New Zealand, as well as all those who have made history at Port Craig or dedicated their time to preserving it – either through research and writing, or with shovels, chainsaws, hammers and preservatives.

## **9. REFERENCES**

See next page:

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- <sup>2</sup> Hanger, M 1981, 'Sawmilling in the Southern Forests' Volume II, unpublished, New Zealand Forest Service Report. The central Southland plains and the areas around Invercargill are excluded from the study, but the remainder of Southland is covered.
- <sup>3</sup> McMechan, A 1997 'Timber Town: A History of Port Craig.' B.A. (Hons) thesis, University of Otago, Dunedin, New Zealand.
- <sup>4</sup> Cochran, C, Butler, T; Kelly, M, & Murray, R, 2007 "Port Craig Viaducts. Waitutu State Forest. Conservation Plan", Southland's Port Craig Viaducts Charitable Trust, Invercargill.
- <sup>5</sup> New Zealand Historic Places Trust, 2008, 'Registration Report for a Historic Place. Port Craig Sawmill and Settlement', report prepared by M. Kelly for New Zealand Historic Places Trust, Wellington, New Zealand.
- <sup>6</sup> Bird, pp.11-15.
- <sup>7</sup> McMechan, p.16.
- <sup>8</sup> Ibid, pp.15-16.
- <sup>9</sup> Bird, pp.11-15.
- <sup>10</sup> McMechan, p.16.
- <sup>11</sup> McMechan, pp.4-13. The first Forest Department was created in 1874, disestablished in 1876, briefly revived in the mid 1880s. The State Forest Service, created in the 1920s, was renamed New Zealand Forest Service in 1949.
- <sup>12</sup> Bird, p.14.
- <sup>13</sup> Te Puni Kokiri, Maori Land Information Base (on line GIS database of Maori Land), viewed 24 August, 2009, <<http://www.tpk.govt.nz/en/services/land/mlib>>
- <sup>14</sup> Bird, p.14.
- <sup>15</sup> McMechan, p.17.
- <sup>16</sup> Hanger, section VI: Port Craig. The Bush. This work has no pagination; references are by section and sub-title.
- <sup>17</sup> Conservator, Invercargill to Director, Wellington, Forestry Department, 5 May 1921, 'Marlborough Timber Company, 1916-1923', F 1 443 23/7/19/1 part 2, Archives New Zealand, Wellington.
- <sup>18</sup> Hanger, section VI: Port Craig. The Bush.
- <sup>19</sup> McMechan, p.18.
- <sup>20</sup> Kelly, p.9.
- <sup>21</sup> Ibid., pp.9-10. The school built by the company was located at the beach. As the mill got into full swing this location became unsuitable, being surrounded by stacked timber and subject to flooding during high tides. In 1926 the Southland Education Board built a new school, the one which remains today, up on the terrace in the settlement.
- <sup>22</sup> Kelly, p.10.
- <sup>23</sup> Conservator, Invercargill to Director, Wellington, Forestry Department, 8 June 1921, 'Marlborough Timber Company, 1916-1923', F 1 443 23/7/19/1 part 2, Archives New Zealand, Wellington.
- <sup>24</sup> Bird, pp.59-60.
- <sup>25</sup> Cochran, et al., p.16.
- <sup>26</sup> Ibid., p.17.
- <sup>27</sup> McMechan, p.64.
- <sup>28</sup> Ibid., pp.19-20.
- <sup>29</sup> Cochran, et al., p.10.
- <sup>30</sup> Kelly, pp.12-13.
- <sup>31</sup> Ibid., p.15.
- <sup>32</sup> Bird, p.100-103.

<sup>33</sup> Ibid., pp.109-116.

<sup>34</sup> Kelly, p.15.

<sup>35</sup> "Milling Expert" memo to Secretary of Forestry, Forest Department, Wellington, 22 June, 1928, 'Holdings Limited, 1927-1939', F 1 443, 23/7/19/1, part 2, Archives New Zealand, Wellington.

<sup>36</sup> Bird, pp.162-4.

<sup>37</sup> Director of Forestry, State Forest Service, Wellington to Commissioner of State Forests, Wellington, 19 April, 1940, 'Holdings Limited, Rowallan Survey District Blocks XII and XIII Southland, 1940-1940', F 1 443 23/7/19/1 part 3, Archives New Zealand, Wellington.

<sup>38</sup> Cochran, C., 1992, 'Port Craig School, Waitutu State Forest, Southland: Conservation Plan', Department of Conservation Report, Southland Conservancy, Invercargill.

<sup>39</sup> Breen, J, 1996, 'An Archaeological Site Survey of Port Craig, Waitutu State Forest' Department of Conservation, Southland Conservancy, Invercargill.