



Far North
District Council

Fast Tracking Environmentally Sensitive Projects

**New Zealand Post
Management Excellence Awards**

**CATEGORY
Process Management Award**

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New Zealand Post Process Management Award

Introduction

The Far North District Council is responsible for one of the most popular tourist destinations in New Zealand Waitangi and the Bay of Islands.



Both Waitangi and the fast growing Paihia are served by a 25 year old, 6.4km long sewerage rising main. In March 2004 the first signs of problems with the existing asbestos cement sewerage rising main occurred when a breakage on the line resulted in a spill of sewage. Repairs were made but in February and April 2006 two further breakages occurred with significant consequences for the community and the environment. Bans on swimming and shellfish gathering had to be imposed along with the precautionary closure of oyster farms in Orongo Bay, Russell.

The Council had already taken an important step in the management of the large programme of outstanding capital works in the water and wastewater sectors in the Far North that had been identified in the Activity Management Plans produced for water and wastewater. In addition to providing for planned renewals and increasing levels of service, considerable new work was also going to be needed to respond to the projected population growth that was expected to occur, mainly in the Kerikeri, Paihia and East Coast Bays regions of the Far North District.

MWH New Zealand Ltd and Opus International Consultants Ltd had previously been appointed provide professional services to assist with the implementation of the programme. In addition a select list of preferred contractors for various categories of construction work was also in place. This meant that the time for contract preparation and tendering could be minimised. The select list contractors were partly chosen for their positive, co-operative attitude to contracting and their long term commitment to the Far North.

It was not expected that this particular rising main would require replacement so early in its life. Council was, however able to respond quickly because the professional services and contractor processes and relationships were in place.

Council wasted no time in dealing with the consequences of the breakages. Although it had not been planned to replace this rising main for many years, the Far North District Council's Utilities Manager commenced a process to ensure as far as possible that there would be no further failures on this particular pipeline.

Council took the bold decision in March 2006 that, in order to significantly reduce the risk of further breakages, it would replace the most critical section of the main running under State Highway 11 between the two pumping stations Waitangi Major and Haruru Major. A few weeks later, after the second break which was in a different section of the main, Council decided to replace the full length of the main

This fast action by Council would significantly reduce the risk of further breaks in what was considered to be one of the most environmentally sensitive parts of the area. All available skills and experience would need to be utilised to fast track the work

Needs and Anticipated Benefits

Although the sewage rising main was in theory only half way through its anticipated lifespan, the number of unexpected breakages showed the need for fast tracking the corrective action. As indicated above, the Council was already managing a large programme of outstanding capital works, but the consequences of not decisively and effectively responding to the unexpected problem demanded that remedial action needed to be treated as an additional specific and urgent capital works project.

The benefits of completing this ring fenced project included

- provision of a robust sewage main for the communities of Waitangi and Paihia
- security for the wider Bay of Islands resident and user base, both commercial and leisure
- maintaining a prime tourist location in pristine condition

Effective Project Management Techniques

In May 2006 Council approved the replacement of the full length of pipeline

In order to deliver certainty for the community and to reduce the risk of further breakages of the existing pipeline with its consequential risk of pollution incidents as rapidly as possible, Council's Utilities Manager required effective ways to ensure the project was completed as quickly as possible, whilst at the same time ensuring that the works were undertaken to a high quality and at a competitive price. To be able to achieve this was going to require a dedicated fast-track project management approach and an experienced Project Manager from MWH New Zealand was seconded to the Council to manage the project on Council's behalf. In addition, Opus International was appointed to carry out the detailed design of the replacement pipe, and MWH New Zealand was appointed to carry out the construction monitoring.

A detailed programme was prepared and a target established of appointing a contractor within three months of the start of the project, i.e. by 1 August 2006, and completing the work on site by Christmas 2006.

Following a pricing exercise and interviews with three select list contractors it was decided to appoint Works Infrastructure Ltd to carry out the construction work for the replacement rising main.

To guide and monitor the progress of the work on site and to minimise the risk of delays to the project, the Client Project Manager in conjunction with the Utilities Manager decided to form a Project Liaison Team comprising leading agencies/stakeholders.

Participatory Approach Involving Key Stakeholders

The Far North District Council manages the third largest land area of any District Council in New Zealand. Many of its communities are small and scattered throughout the District. Prior to 2002 attempts had been made to involve all Far North District Council communities in planning but it is true to say that a cohesive participatory process on Council operations was not consistently applied.

In 2002 the Council applied for the local government Performance Excellence Study Awards (PESA). The written feedback from this application highlighted the opportunity to improve pro-active participatory processes.

In line with the approach recommended in the PESA feedback, a project liaison team made up of leading agencies and stakeholders was formed. This Project Liaison Team consisted of representatives from the following organisations:

- Client Project Manager (from MWH New Zealand) and representing FNDC
- Communications Manager (FNDC)
- Engineer to the Contract (Independent Engineer - Larry Jacobson)
- Representatives from the designers and planners (Opus International)
- Representatives from the construction monitors (MWH New Zealand)
- Representatives from the Contractor (Works Infrastructure Ltd)
- Community Board Representative
- Representatives from the local Iwi (Waitangi Marae Mauri Komiti)
- Representatives from Northland Regional Council, Northland Health and Transit NZ



The Team met monthly on site. This was particularly useful as it meant that the main stakeholders in the project were kept well informed about progress and any issues. Good communication is always the key to resolving problems and the fact that the above representatives knew what was happening on the project and could voice their concerns direct to the designers, the contractors and the construction monitoring team meant that problems were quickly and satisfactorily resolved.

A desk top assessment revealed that the existing pipeline and hence the new pipeline, would be passing through areas identified as of low archaeological interest. As it was possible that an "Accidental Discovery" could arise, a Section 12 authority was obtained under the Historic Places Trust Act prior to physical works commencing on site. As part of the Resource Consent conditions the Council was required to make arrangements for excavation monitoring in case of any 'taonga' or artefacts being uncovered.

The local Iwi representative on the Project Liaison Team recommended an Iwi monitoring service. This was adopted and proved to be a valuable measure. In September 2006, in the vicinity of Kaipatiki Bridge on State Highway 11, the contractor uncovered waterlogged wood, regularly spaced and appearing to form a structure approximately 1m below the road surface. All activity stopped in accordance with the Accidental Discovery Protocol. A visit by the archaeologist confirmed the discovery as archaeological, the Historic Places Trust was notified in accordance with the Protocol and it was agreed to fully record the exposed elements of the wooden structure and preserve as much as possible. The route of the pipeline was shifted approximately 0.5 m to the south of the original designed alignment and the site was fully recorded.

The discovery was described as covering three phases of human activity; the earliest phase relating to a te awa hoenga waka (landing place) in the late eighteenth century to early nineteenth century, the construction of an historic roadway dated between 1880 and 1910 and the latest phase, a twentieth century modification to the Puketona Road. The find has been fully reported in Archaeological Monitoring - Waitangi Major Pump Station to Paihia Treatment Ponds: Replacement Rising Main under Authority 2007/07 (S7). This report acknowledges the input and support that was given by the Iwi representative on the Project Liaison Team, Emma Gibbs-Smith, and the Iwi Monitors amongst others.

The Project Liaison Team provided a focus for this discovery together with a number of other issues that inevitably arose during the course of the project. All members of the Team agreed, at the completion of the project, that the existence of the Team was a crucial factor in getting the contract completed on time. The archaeological discovery itself could have led to many months delay under normal circumstances. As it turned out there were only 2 weeks lost and the \$8M project was designed, tendered, constructed and commissioned by the due date of Christmas 2006. These were all within 8 months of the Council's decision to proceed and most of the physical works were undertaken during the winter and early spring which are difficult times, for weather reasons, for outdoor construction work.

Innovation and originality

As outlined above the background leading up to this project had fostered the development of Far North District Council wide strategic planning for all Council Management groups. What necessitated an innovative approach was the urgency required to overcome the unexpected and unforeseen issue. The very real possibility of further - and major - rising sewage main failures with dire consequences meant that the two key drivers for the project were

- speed of response
- a robust solution with long term sustainability

The Council is particularly proud that both drivers were satisfied and the project completed to deadline without compromising the participatory process. Rather, by cultivating the inclusive approach, the historical and community interests of all facets of the Far North District Council's widest stakeholder definition were met.

This did require some original approaches, in particular new delegation lines with new responsibilities. The Communication process followed kept the project on track.

Successful Results

This fast track project was unplanned but essential. The new main was commissioned in line with the programme and is a significant achievement. The overall result is that the risks to the environment of one of the most beautiful parts of New Zealand from further sewage main failures have been significantly reduced and the communities served by the sewage main now have a greater level of certainty regarding the reliability of this essential service.

Cost benefits have been achieved by overcoming the problem in this fast track way. The approach worked and the deployment of the project was completed with the goodwill of all involved on the special team.

One of the unexpected benefits is that Council now has experience of the model, and the approach is now being successfully used on for other high profile environmentally sensitive projects

The Right Thing to Do

There is no doubt that treating the unplanned problem as a stand alone project was the right thing to do both from a local community, regional, district, national and international point of view. The problem necessitated a prompt, decisive and effective response and the outcome and feedback from all stakeholders has been overwhelmingly positive. It is particularly pleasing that even the benefits of the unexpected archaeological opportunities could be maximised.

It is not often that a local government capital works emergency can be met with such a collaborative response and to such good effect.