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Report To: Council Meeting
Meeting Date: Wednesday 23 November 2011
From: Corporate Services Manager
Subject: **EcoCare – From Conception to Handover**
Date of Report: 22 November 2011
Signed By:

Barbara Ware

Glossary

Simon Engineering: the initial preferred bidder. Parent company ran into financial difficulty and preferred bidder status was revoked

Earthtech: One of three bidders short-listed and ultimately the successful bidder

Water Infrastructure Group (WIG): Earthtech changed its name becoming the Water Infrastructure Group or WIG late 2008

Beca Carter Hollings & Ferner (BECA) -Brent Johnson/EPS International – Peter Elliott – Joint Project Managers.

Preamble

This is one of four current reviews into the Mangawhai Community Wastewater Scheme. The other three are:

1. Independent Review of rating issues, that includes the first principles review (commissioned from Jonathan Salter, Simpson Grierson);
2. Financial review, that includes costs, financing and funding issues (in-house review in the first instance); and
3. Valuation of the Mangawhai Community Wastewater Scheme (commissioned from MWH)

The timeframe for completion of these reviews is mid- to late December 2011.

Background

During the period 1976 to 1989 monitoring and studies showed that human waste was finding its way into the Mangawhai Harbour. Council proposed sewerage schemes in 1981 and 1988 when Government subsidy was available. These proposed sewerage schemes were rejected by the community as not being needed.

In 1996 as part of the District Plan process the Department of Conservation appealed the above decision. The Department expressed its concern about the human impact on the Mangawhai Harbour Environment and that fact that there was no protection afforded the Mangawhai Harbour. To settle this appeal Council agreed to commission the Mangawhai Planning Study.

More studies were undertaken during the 1996/97 period including the Mangawhai Water and Shellfish Quality Survey by the Northland Regional Council. This identified pollution in drains at the Village and Heads was having significant effect on shellfish in the Harbour. The report concluded that seepage from onsite sewerage systems was the likely cause. The Institute of Environmental Science and Research produced a report on Quality of Water which said the water quality at Mangawhai Heads was poor and the site was polluted.

The Mangawhai Planning Study was completed in 1997 and identified a potential health risk from use of septic tanks in urban areas. This was causing pollution of groundwater and the harbour.

The Mangawhai Infrastructural Assets Study was commissioned by Council in 1998. This Study was initiated to address Council's concerns about the impact of growth at Mangawhai, the Northland Regional Council concerns for harbour water quality and general health concerns at the water quality of the Harbour. The Northland Regional Council had advised Council that the status quo was not an option and that the sewerage issued had to be addressed.

Community consultation commenced in a newsletter in November 1998. A second newsletter was sent advising that the status quo was not an option. A public meeting was held on 23 January 1999 which some 170 people attended. Issues and options were presented and feedback was requested. A third newsletter was sent to approximately 1,500 ratepayers that also set out the issues and options. 370 people responded.

A survey was undertaken in February 1999. A summary of the responses received is as follows. The two themes evident were protection of the Harbour and cost concerns. 62% believed a wastewater scheme was needed. 56% believed that the status quo in respect of the water supply was acceptable. 65% asked for a low impact approach to stormwater. 26% said more footpaths were needed.

A fourth newsletter followed in May 1999 which included a summary of the survey responses.

Workshops were held in May 1999 which provided more feedback for Council. The draft Infrastructural Assets Study reflected community feedback and identified the process going forward: a water supply was not required – status quo, stormwater was to be low impact and a community scheme for wastewater.

Council adopted the Infrastructural Assets Study in August 1999. The document had been based on extensive public consultation but Council asked that there be a further public meeting to enable the community to see the document so as to be certain that Council understood the community view.

A newsletter in September 1999 included an invitation to a public meeting and outlined the recommendations and options for implementation. The public meeting took place on 25 September 1999.

Council commenced District Plan Change No. 9. This plan change introduced new rural/residential zoning. It also said sewer sections could be smaller and that unsewered sections needed a larger minimum size. The notification period for the Plan Change was December 2000 to February 2001. Details were issued to every ratepayer and resident and it was the opportunity for the community to have its say.

Council Commits to the EcoCare Project

On 24 May 2000 Council resolved to proceed with the implementation of the EcoCare Project and to advise the Mangawhai community accordingly. Council also adopted the Mangawhai EcoCare Implementation

Strategy. This Strategy focused on the consensus views of the community to achieve the required outcomes. The Community Liaison Group was a key part of this focus. Council weighed up all the views, those of the community, the regulators, the experts and then made the best decision it could for Mangawhai, the wider community and the environment.

As part of the process Council went through before getting to this point, it did consider a septic tank Bylaw option however a Bylaw would not have dealt cumulative effects nor was not acceptable to regulators.

Council tendered for a project manager and as a result of this process appointed Beca Carter Hollings & Ferner. EPS International was a subcontractor of Beca so the project was in effect jointly managed by BECA and EPS.

A Project Steering Group made up of Councillors, staff and consultants was formed. A Community Liaison Group made up of members of the local community including non-resident ratepayers and iwi representatives was formed. This ensured that the community continued to have a say, provided a contact point for locals, communicated with locals and provided feedback to Council.

Twelve Community Liaison Meetings were held between 1 February 2001 and 1 March 2002, there were regular articles in the Mangawhai Memo between 8 March 2001 and 29 November 2001, there were four EcoCare Newsletters; March, April, August and November 2001 and a Stakeholders Forum was held 5 April 2001.

In February 2001 the Northland Regional Council released its report detailing the Mangawhai Heads Monitoring Results. The document held no surprises. The harbour was polluted, the pollution was widespread affecting drains and streams in the Village and the Heads area and the likely cause was septic tank seepage.

The Tender and Negotiation Processes

Council initiated the tender process in April 2001 calling for Expressions of Interest. Over 40 copies of the document were issued to those expressing interest. Evaluation criteria were developed against which any Expression of Interest received was to be measured. These included affordability, enhancement of harbour water quality, compliance with regulatory and environmental standards and compliance with community expectations on wastewater treatment systems and processes.

Expressions of Interest closed June 2001 and Council had received seven bids, five from New Zealand companies/consortia and two from overseas. Details were published in the Mangawhai Memo.

The Evaluation Team made up of Councillors and consultants interviewed all bidders during the period 31 July to 1 August 2001. Three companies were shortlisted; Simon Engineering, Tyco (of which Earthtech Engineering was a division) and Northpower. Again, details were published in the Mangawhai Memo.

A community forum was held 26 November 2001 at which the community had the opportunity to meet the three successful bidders. 120 people attended providing verbal and written submissions. The feedback from the day indicated that something must be done, water quality was an issue, people with problem septic tanks should pay and the use of appropriate septic tanks should be addressed.

A special meeting was held between the Mangawhai Residents and Ratepayers Association and the successful bidders on 10 January 2002 and then with the Community Liaison Group on 12 February 2002. Feedback from these formed part of the bidder evaluation process.

In April 2002 formal tenders were submitted by the three successful bidders and were evaluated against the defined evaluation criteria. The evaluation process involved the Steering Committee, Council Staff, the Project Managers, an iwi representative and two members of the Community Liaison Group.

At the end of this process, the recommendation to Council at the 28 August 2002 Meeting was that it awarded the preferred bidder status to Simon Engineering. This company was significantly cheaper in price than the nearest competitor and was more flexible in its approach.

Two significant issues then occurred which delayed the project from 2003 to 2005, each one costing approximately 12 months in time.

- 1 The Local Government Act 2002 was introduced on December 2002. The Act said that the length of a term of contract must be less than 15 years and that Council must own its water and wastewater assets.
- 2 Simon Engineering's parent company, Henry Walker Eltin (HWE) struck financial difficulties.

The advent of the Local Government Act 2002 meant that Council had to reconsider its options. The impacts of the Local Government Bill were that Local Government must own water and wastewater infrastructure and there was a 15 year limit on operating contracts. This meant that a Build, Own, Operate and Transfer project was outside the intention of the legislation. Council assessed the project delivery methodologies and looked into a range of alternatives including:

- Traditional in-house design and separate construction and operations contracts
- Design and Build contracts with separate operations contracts
- Design, Build, Operate contract
- Design, Build, Operate, Own and Transfer contract
- Design, Build, Finance, Operate contract.

At the 22 January 2003 Council meeting Council resolved to reduce the term of the contract, based on a 15 year maximum operating period, this had to be done to comply with the Local Government Act. The resolution provided Council with a way of moving forward with the project that built on the work already carried out, while also taking into account the requirements of the Local Government Act 2002.

At this meeting Council also decided to amend delivery from Build, Own, Operate and Transfer (BOOT) to the Design, Build, Finance and Operate (DBFO) method. The report from the Project Steering Committee presented at this meeting noted that Simon Engineering had a clear preference for the option to transfer total ownership of the assets and infrastructure to Council as soon as possible. The Minutes that attached to this meeting referred to Council's resolution of August 2002 which reserved its rights in relation to the financing of the project thus enabling Council to consider other financing and ownership options meaning Council was able to proceed with a Design, Build, Finance and Operate option.

The result of a Design, Build, Finance and Operate method was that it that the eventual successful bidder would design, build and fund the wastewater treatment scheme. It would operate it for the period it took

Council to arrange finance to pay for it, and then the scheme would be transferred back to Council in a specified condition, with all renewals and repairs up to date. It also meant that Council would get a fixed price proposal where the private sector accepted risks associated with design, build, construction, commissioning and operation of the wastewater treatment system including collection, treatment and disposal in accordance with government regulations and consents.

This option was selected by Council as it did not want to accept the risk of cost over runs on the project and/or the system not working once it was completed. These and other risks have historically been borne by councils when they use the traditional design and construct methods which then leads to significant uncertainty in setting costs. Council is aware of issues and disputes arising between the Council, the designers, the builders, the operators or even the equipment suppliers as to who is at fault if something goes wrong or increased costs are incurred without prior approval when traditional methods have been adopted.

In this case Council and the community were protected from these risks by a single contract interface between Council and the one company. That company turned out to be (Earthtech). It was Earthtech's responsibility to manage all the internal interfaces and be responsible for the obligations of all of them.

Council did not consult on the change of option. However the Statement of Proposal prepared by Simon Engineering in July 2003 (**Attachment 1**) referred to the fact that the BOOT method could no longer be considered and had been replaced with the Design Build Finance Operate method. It also pointed out that Council's process was not the traditional approach where the Council designed the solution and tendered out the construction works. This approach would have locked everyone into a single option solution. It noted that all bidders had been free to evaluate any solution based on their understanding of Council's requirements.

In July 2003 the first Statement of Proposal prepared by Simon Engineering was released.

The original Drainage District map was created in November 2003. The Drainage District is a defined boundary which provides Council with the legal power to connect properties within its boundaries to EcoCare, when (and if) the sewerage system is extended to service the property in question.

In February 2004 Council resolved to enter into a contract with Simon Engineering. The total cost of the project was not to exceed \$17.6 million.

A probity report on Simon Engineering was presented to the Steering Committee. It noted some concerns with the parent company, Henry Walker Eltin. Council monitored the situation. Glencore announced a possible new investor in the company however that investor withdrew and HWE and Simon Engineering went into administration. The preferred bidder status for Simon Engineering was withdrawn in early 2005.

Appointment of the Successful Contractor

The two remaining bidders, Earthtech and Northpower were invited to confirm their bids. Staff understand that Council made an informal decision not to re-tender the process as it still had two preferred bidders. This decision appears to have been based on two factors, the extra cost incurred by Council if it were to repeat this process and the amount of time already expended. Council had made the decision to act in May 2000 because the status quo was unacceptable. Nearly five years on the status quo still remained.

Council wrote to Earthtech Engineering Pty Limited and Northpower on 24 February 2005. In a letter dated 04 April 2005 Council received a letter from Northpower saying that it did not wish to be considered a "Preferred proponent". Earthtech were not made aware of Northpower's withdrawal by Council to provide the necessary commercial tension to ensure a competitive price.

Negotiations continued with Earthtech to reach agreement on the contract. On 25 October 2005 the Project Deed was signed. The guaranteed maximum price was \$26,264,923 and the scheme would cater for 1,216 sections.

A second Statement of Proposal prepared by Earthtech was released in February 2006. **(Attachment 2)**

The EcoCare Statement of Proposal prepared by Earthtech in February 2006 made it clear that the initial reticulation area would be progressively expanded as required within the Drainage District to service those remaining properties as and when development occurred. After considering the growth of the area, Council entered into negotiations to modify the scope of the project.

At the 27 September 2006 Council Meeting a Beca report entitled "Mangawhai EcoCare Sizing and Growth Assumptions" was adopted. **(Attachment 3)** Council modified the project to incorporate additional areas to be reticulated within the Heads and Village, alternative disposal/ reclamation facilities, and inclusion of house connections.

EcoCare Scope Increased

Council considered Beca's report entitled Mangawhai EcoCare – Discussion Paper on Rates and Charges **(Attachment 4)** at its October 2006 meeting. This report contained the modified scope and associated projected costs and was adopted by Council at that meeting.

The length of time taken to reach this point meant that the scope of works had changed. The original position adopted by Council was conservative based on an estimated 1,216 sections (as at 2001) with a forecast growth rate of some 2% per annum over 25 years. This had the potential to see some 3,300 sections created over a 25 year period. Developments within the Drainage District as at October 2006 had resulted in the number of sections, in existence or with resource consent applications submitted currently totalling some 2,784. Development was occurring much faster than initially anticipated. Future projections indicated that the system could eventually need to cater for 4,500 sections.

The original scope was as follows:

Earthtech's original proposal was based on the following parameters:

- Servicing 1,216 sections within the developed areas of Mangawhai Heads and Village, excluding all developments west of Molesworth Drive, all of the Moir Point Road area, any new developments in the Village in any area.
- Provision of sewer pipe past the property (house connections excluded)
- Disposal of treated effluent to Mangawhai Park via drip irrigation
- Treatment standards suitable for the above disposal option

- Consents lodged in March 2002 with an expected start date of September 2002 and final completion in August 2004 assuming a six-month resource consent period.
- The modified scope suggested by the report was as follows:
- The proposed modification includes amended parameters to address these changes including:
 - Servicing some 3,000 sections within Mangawhai, including Jack Boyd Drive and the Sands development, Moir Point Road developments, Mangawhai Tavern development and the Anchorage and other developments within the Village;
 - Acquisition of the Lees farm (\$5 million) and the construction of an estimated 11 kilometre transfer pipeline, construction of a wet weather storage dam and installation of an irrigation scheme for water reclaimed that will meet Fonterra's standards for them to purchase dairy produce from the irrigated land;
 - House connection for all existing properties; and
- Resource Consent lodged in September 2006 with an expected construction commencement date of February 2007 (based on 6-month resource consent period) and a construction and commissioning period of two years (nominal end date of February 2009).

The **estimated** cost of the modified scope of works put before Council was as follows:

ELEMENT	CONSERVATIVE (\$000s)	VERY CONSERVATIVE (\$000s)	MOST CONSERVATIVE (\$000s)	MID RANGE (\$000s)
ORIGINAL CAPEX				26,400
ADDITIONAL CAPITAL EXPENDITURE				
Extension of network to Jack Boyd Drive/ Sands	1800	1980	2200	1,800
Extension of network to Moir Point Drive	2025	2228	2475	2,025
Extension within the Village network	720	792	880	720
Amended work within reticulated networks	360	400	440	360
Treatment Plant Modifications/ Disinfection	430	430	473	430
Transfer Line to Disposal Site	2244	2550	2805	2,550
Bygraves Irrigation works	300	300	600	300
Storage Dam	2538	2820	3102	2,820
House Connections	2350	2500	2500	2,350
Additional Capex approx 2014	1500	2000	2500	1,500
Escalation to Feb 2007	1284	1440	1618	1,284
Thelma Road Upgrades - Provision Only	50	75	100	100
SUB TOTAL	15551	17439	19593	16,239
Farm Purchase Price	5000	5000	5000	5,000
TOTAL ADDITIONAL CAPEX	20551	22439	24593	21,239
REVISED CAPEX				47,639
Council Charges & Finance Fees				10,126
TOTAL PROJECT COSTS				57,765

The term "Most Conservative" in this instance appears to refer to what the "worst case" or "most expensive" scenario might cost.

Consultation

Council did not consult on the cost of the increased scope. Staff can find no formal documentation but understand that a decision was made that as the cost to the individual did not change there was no need to consult further.

On file there is a copy of an email received from a representative of the Mangawhai Residents and Ratepayers Association dated 04 December 2006. It is a summary of a meeting held on 03 December 2006. Councillor Tom Smith is noted as having addressed the meeting and advising that “costs were increasing, but so were (the) number of rateable (sic) properties so per household costs should remain much the same. If costs were to be significantly different Council would need to consult further with the community.”

Also in December 2006 it appears that a newsletter was sent out. **(Attachment 5)** It stated that Council was including new developments within the scheme and costs were not yet final but would probably remain much the same as previously advised for individual property owners, with some allowance for inflation. The newsletter also stated that if there were any significant changes there would be public consultation via an amended statement of proposal.

Both the 2007/2008 and 2008/2009 Annual Reports noted that the EcoCare scope of work was progressively being expanded to include areas that had built up since the initial reticulation scope was set.

Work Commences

Resource consent applications were lodged in September 2006 and granted on 28 August 2007. Following the granting of the resource consents the concerns were subject to two appeals from stakeholders. Both appeals related to localised environmental impacts relating to individual properties. However, one appellant did widen the scope when it was found he could not pursue his initial line of appeal. The appeals were solved through mediation, so there was no Environmental Court action, and no disadvantages to ratepayers or the environment.

In January 2007, work on the EcoCare Scheme began.

In April 2007 Council purchased a farm as a disposal site. The farm was located at Browns Road, Mangawhai. Council had considered other disposal sites such as purchasing the Mangawhai golf course, however this was not recommended because of capacity restraints. Disposal of 100% of the effluent to the golf course would result in effluent discharging into the Mangawhai Estuary. Council also considered purchasing Sand Spit, however this was also not an environmentally friendly option as there was a high chance the effluent would discharge into the Mangawhai Estuary as well. The only sustainable option was the purchase of farmland at Browns Road, Mangawhai. It was the most sustainable option as it was easily upgraded and augmented, had low public risk, and the smallest footprint. It also had the potential for incorporation of additional disposal sites along route of the effluent transfer main.

In September 2007 Beca appointed an EcoCare Community Liaison Officer to work with the local community and act as an interface with Earthtech throughout the consent and construction process.

In December 2007 Council and Earthtech entered into the new Project Deed to give effect to the expanded scope of the works, and to make provision for sectional completion of the Facilities. On 7 December 2007,

the EcoCare Community Liaison Officer sent a newsletter to ratepayers explaining that if EcoCare services were available to a person's property then they are required to connect regardless of the type of existing wastewater treatment and disposal system currently on the property. The Local Government Act 2002 enabled Council to require householders to connect. The EcoCare Community Liaison Officer also sent ratepayers similar newsletters in April 2008 and October 2008 making them aware of this fact. On 15 April 2009 Council sent a letter to 1,020 Mangawhai residents advising residents that Council had recently expanded the scope of sewerage service. EcoCare was a system intended to capture every residential property within the Drainage District.

EcoCare construction began on 14 January 2008.

In July 2009, the first houses were connected to the Scheme.

The official opening of EcoCare took place on 16 January 2010.

On Tuesday 1 June 2010, Beca presented Council with a report titled 'Mangawhai EcoCare Project Review'. The report explained that as of June 2010, the EcoCare system in place could directly service over 2,200 properties, and can service in excess of a total 4,000 properties. This is because the system is already set up, therefore any further properties within the Drainage District that require connection can connect directly to the system via a developer installed system, as can all other adjacent developments.