

Editorial



Niksa Sardelic – Editor

In this issue, we focus on Beca and the community: providing community amenities on larger and smaller scales, working with communities to ensure their views are included in the planning process and looking at some of the big issues our country faces.

The coast has always been of great importance to many New Zealanders and connecting people to the coast is something that local government bodies and Beca are working together to achieve. Beca is involved in a range of coastal community projects, from a walkway along the Pakuranga foreshore to the transformation of a central city 'tank farm' into a residential, commercial and light industry hub.

Bringing people together is also something that instills a sense of pride in Beca. New Plymouth local iwi, with Beca as advisor, created a cultural planning document that was unique at the time

to contribute to the New Plymouth City Council's coastline strategy.

Throughout winter we are frequently warned about potential power crises due to the low levels of our hydro lakes. The country is starting to look at alternative energy options and marine energy is attracting attention as a possible source. Riding the wave of this is Associate Planner Cushla Loomb who has been awarded the Resource Management Law Association Fellowship. Cushla's research has recently taken her to the UK and she is using the valuable insights she gained there to understand better the potential of marine energy in a New Zealand context. Also in this issue, we profile Senior Civil Engineer Jennifer Hart who has returned to Beca after six years in the UK and Australia.

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Environmentally friendly coastal walkway for the Pakuranga peninsula

Beca provides design solution for missing link

A coastal pathway linking a busy shopping plaza with an existing beach walkway in East Auckland has enriched the lives of many nature lovers in the community.

In 2003, walkers in the surrounding suburbs had no means of easily accessing the Eastern beach walkway along the Pakuranga peninsula from the heart of the area, the Pakuranga Plaza shopping complex and municipal hub. The last section of the coastal walkway needed to be built around a stretch of steep, tidal coastline, which was not passable at high tide.

Manukau City Council had been trying for some time to reach agreement on a route for the last piece of the very popular walkway and engaged Beca to come up with an environmentally friendly solution for the last 500m, without encroaching on the land, which in this area belongs to a private school.

With assistance from Auckland Regional Council staff, Beca developed the concept for a coastal walkway sited at the base of the steep bank, but raised above high tide so that it could be used all the time. This made the walkway generally flat and easy to navigate.

The project then went forward, funded by both Manukau City Council and the school.

An important consideration for the walkway was a band of ignimbrite exposed in the cliff face that the Council wanted to maintain for display. With input from the Auckland Geological Society, the Beca team developed a solution that used a timber structure to bridge over the 20m section of the exposure. This allowed natural erosion at the base of the cliff face to keep the ignimbrite visible while

keeping the pathway close enough to provide a view of this rarely visible volcanic ash deposit.

Beca's walkway concept involved using stabilised dredgings, called 'mudcrete', to raise and build the pathway along the bottom of the cliff edge, reclaiming a strip of land. This helped to reduce erosion of the steep coastal banks, minimising impact to the coastal marine area. Mudcrete has been developed and extensively used by Beca in Auckland. It weathers over time to mimic the appearance of the surrounding sand and cliffs and offers an innovative way to use dredged material that would otherwise be sent to landfill or disposed of at sea.

Beca took the concept from detailed design to resource consent, including extensive public consultation, right through to completion of construction. Feedback from the community and Manukau City Council on the resulting walkway has been very positive, with the walkway regarded as aesthetically pleasing and being widely used by the community.

"The Beca team displayed great professionalism and confidence in developing a suitable solution for moving the walkway development forward after no progress could be made for many years. Their ability to deal and interface with a range of organisations, communities and property owners is one of the main contributing factors for the success of this project", notes Johan Ferreira of Manukau City Council.

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A common voice

The protection of New Plymouth's coastline is universally important to local Maori. As such, New Plymouth District Council knew that broad and meaningful consultation with tangata whenua would be vital for the success of its Coastal Strategy. With the assistance of Beca Planning, the Council facilitated the operation of a representative group of Maori throughout the district, one that spoke with a common voice.

In order to determine the most appropriate way to consult with tangata whenua, representatives from each New Plymouth iwi and hapu were invited to attend hui to discuss the proposed Strategy. From these conversations, the Manua Whenua Reference Group (MWRG) was born. Its membership comprised mandated representatives from 12 parties across four iwi and several hapu boundaries, Council's Iwi Relationships Coordinator and a strategic Beca Planner, invited on behalf of tangata whenua to act in an advisory role and work with the Council in coordinating MWRG inputs.

"This project was unusual," says Senior Beca Planner Namouta Poutasi, "as it involved an innovative group of mana whenua working together for the greater

good of New Plymouth's coastal environment, and it has helped to continue building positive relationships between mana whenua and Council."

To give weight to the group's position, a coordinated and combined paper – the Mana Whenua Mana Moana Paper – was created. "This is a unique document," says Namouta, "as it incorporates both oral history and contemporary planning, and brings together in one paper the thoughts and aspirations of mana whenua – possibly a first for tangata whenua strategic planning."

This pivotal tangata whenua reference document is now being implemented by Council, and has also been awarded the 2007 New Zealand Planning Institute Award of Merit.

This project was also a finalist in the recent Beca Innovate Awards, where the external judges commended the Beca team for "tackling a very difficult task with good outcomes and happy stakeholders."

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Beca helps develop award-winning tangata whenua strategic planning paper



Auckland's Waterfront Redevelopment Leaps Ahead

Auckland's 'Tank Farm' redevelopment has made great strides since our initial Coastlines article in 2006. The western reclamation and tank farm have now become known as Wynyard Quarter, at the heart of which is the Sea+City project area. The name reflects its key role in connecting the people of Tamaki-makau-rau to the sea and city.

The changes came about through the 2007 sale of the 18.5ha site to Auckland Regional Holdings (ARH) by Ports of Auckland Ltd. ARH then formed Sea+City Projects Ltd as its management and implementation arm. The plan is for seven hectares of open public space including roads to be taken over by Auckland City Council (ACC) and the 4.5ha Point Park to be jointly owned by ACC and Auckland Regional Council.

The complex Sea+City Project to transform the brownfields inner city site into a residential, commercial and light industrial hub is aimed to be completed in four stages over approximately 25 years, beginning this year. Its first objective is the design and construction of public areas along Jellicoe St in time for the 2011 Rugby World Cup. The first construction contract to upgrade the North Wall and Wharf began in July.

Beca has been working with Architectus and Boffa Miskell as part of Sea+City Projects Ltd's master planning team to further develop an Urban Design Framework and supporting documentation. Beca's examination of infrastructure services included stormwater concept design, investigation

and assessments of utility services, investigation and design documentation for the upgrading of the North Wall and Wharf, as well as traffic transportation advice.

"I believe that Sea+City is one of the most significant urban waterfront projects in the South Pacific," says Jennifer Hart, Beca Project Manager for engineering inputs on the Sea+City master planning team. "We are relishing the challenge to provide fresh ideas and clever thinking to engineer the development."

The Urban Design Framework for Wynyard Quarter is set out in the Sea+City project website, www.seacity.co.nz, alongside the Concept Masterplan. It takes into account Aucklanders' views on the redevelopment and reviews many successful international waterfront developments.

A design competition has also been held by Auckland City Council for an iconic bridge connecting Wynyard Quarter to Auckland's Viaduct Harbour precinct and the winning design is expected to be announced in August.

The master planning team's recent efforts have focussed on the June 2008 District Plan Change Hearings with Auckland City Council and the Auckland Regional Plan Council's Coastal Plan Change Hearings which began in late July 2008.

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Master planning for Sea+City urban design framework



Researching marine energy generation for New Zealand's future



At the end of 2007, Associate Planner Cushla Loomb was awarded the Resource Management Law Association (RMLA) Fellowship. The aim of the grant is to enable resource management professionals to benefit from leading-edge thinking, enhance their ability to bring about improvements in New Zealand resource management, and to build global professional networks through funded research.

Drawing on her coastal planning experience, Cushla will use her fellowship to research marine energy generation. Marine energy generation is gathering momentum in New Zealand, particularly following the release of the New Zealand Energy Strategy and the introduction of the Marine Energy Deployment Fund.

Industry researchers have said New Zealand's natural resource advantage could make marine energy a significant contributor to our future energy supply and have estimated that as much as 20% of the country's electricity could potentially be generated from marine energy sources.

Many developers are investigating and trialling marine renewable energy as a viable, sustainable energy source in various locations around Europe. Cushla travelled to the UK and Ireland in May to research both actual environmental effects and resource management challenges faced by countries advancing these developments.

"To achieve efficient, effective and legally sound resource management processes that produce high quality environmental outcomes, we need to better understand the potential impact of wave and tidal energy devices in the New Zealand context, and make appropriate provision in our resource management planning framework", says Cushla.

Cushla's fellowship-funded research will culminate in a report aiming to do precisely that, and she will share the results in a number of RMLA road shows held in early 2009 around New Zealand.

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Profile

Jennifer Hart



Jennifer rejoined Beca last year after six years of "seeing what work is like on the other side of the world". She is delighted to be back on home soil, close to the ocean she loves. Jennifer and her family have settled in Auckland's eastern beach suburb of Kohimarama, where she, her water loving toddler and her cyclist husband are all in their element.

How long have you been in this profession?

Fifteen years. My work has taken me all over the world, from my early career in New Zealand in the 1990's to studying in Holland and on to Cornwall and the East Coast of the UK. The last two years I spent in Brisbane, working remotely on my UK projects.

Why did you choose this profession?

I was pretty much set on the path of becoming a coastal engineer as a result of the big storms in the mid 1970s. My family lived at Whangateau, near Omaha, and as children we played on the erosion scarps there after the storms. I've always been fascinated by the effects of weather and human development on our coastlines.

Do you have a favourite project?

A project that stands out in New Zealand is the consenting of the Rangitoto Channel deepening, where I worked with our planning and engineering teams to prepare the consent application and assessment of environmental effects. It was a fascinating project and important for Auckland's commercial future, so it's been great to come back and see it in operation.

The project that probably had the largest scope and contributed greatly to my experience is the Lincshore Sea Defences project in the UK, where I was responsible for procuring a 5 year beach nourishment contract, completing a 50-year management strategy for 24km of sea defences in Lincolnshire and completing an engineering, economic, environmental and risk appraisal of the 2005 to 2009 nourishment scheme, among others.

What do you do to relax?

Nothing beats a run at sunrise along Tamaki Drive.

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