

Boffa Miskell

Cars give way to people



New route for electricity

03

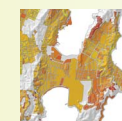
A new transmission line is approved, after robust route selection and thorough consultation
— SEE PAGE 3.



Shared street in action

04

The first of Auckland's city centre shared streets opens
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Past, present, future

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Marc Bailly explains why heritage is important
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Boffa Miskell

news



Editorial: Science & technology embrace

Last year, Boffa Miskell appointed directors to lead, respectively, the Planning, Design, and Science & Technology areas of expertise that are so important in Boffa Miskell's daily work and success.

As Director :: Science and Technology, I am pleased that this newsletter demonstrates the degree to which new technologies and the scientific application of information and knowledge are extending us and broadening the scope of our work.

New tools in database management, GIS mapping, 3-D modelling and visual simulation, to name a few, are allowing us to more easily interpret data, model scenarios, and make predictions for potential futures, be they urban growth, landscape change or assessments of effects. As a consequence, we are all working increasingly with the scientific method: its robust methodologies, measurable evidence, repeatable results and independent verification.

Like much scientific endeavour, our objective is to use our creativity to solve problems. We combine the skills of our technical people with those of our discipline specialists to turn data into meaningful knowledge that translates into workable solutions for our clients.

A body of knowledge must stand up to independent scrutiny and testing by others and much of our work is scrutinised in this way; by our clients, by the general public, by our peers and through the RMA process including in the Environment Court.

This newsletter features project examples of systematic research, backed by technology, undertaken in several of our core disciplines.

Science and technology are both areas where innovation and learning are continual. I look forward to supporting Boffa Miskell in the exciting challenge of keeping pace with new developments for our clients' and the wider environment's benefit.

Stephen Fuller, Director :: Science & Technology

New economic anchor for the Waikato planned

Boffa Miskell is assisting Tainui Group Holdings and Chedworth Park Limited, with master planning of a key growth area in the east of Hamilton.

The 500+ hectare site, known as Ruakura, is strategically located beside the East Coast main trunk line and the proposed Waikato Expressway. The master plan builds on these attributes, which hold opportunities for enhancing New Zealand's economic competitiveness. The proposals include a nationally important 'inland port' and logistics hub, as well as employment areas, new commercial centres, research and innovation precincts and comprehensively planned neighbourhoods.

Boffa Miskell is now developing the interim master plan further, working collaboratively with the Hamilton City Council and other stakeholder agencies.

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winter ²⁰¹¹

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COVER: At the opening of Darby Street shared space, Auckland.

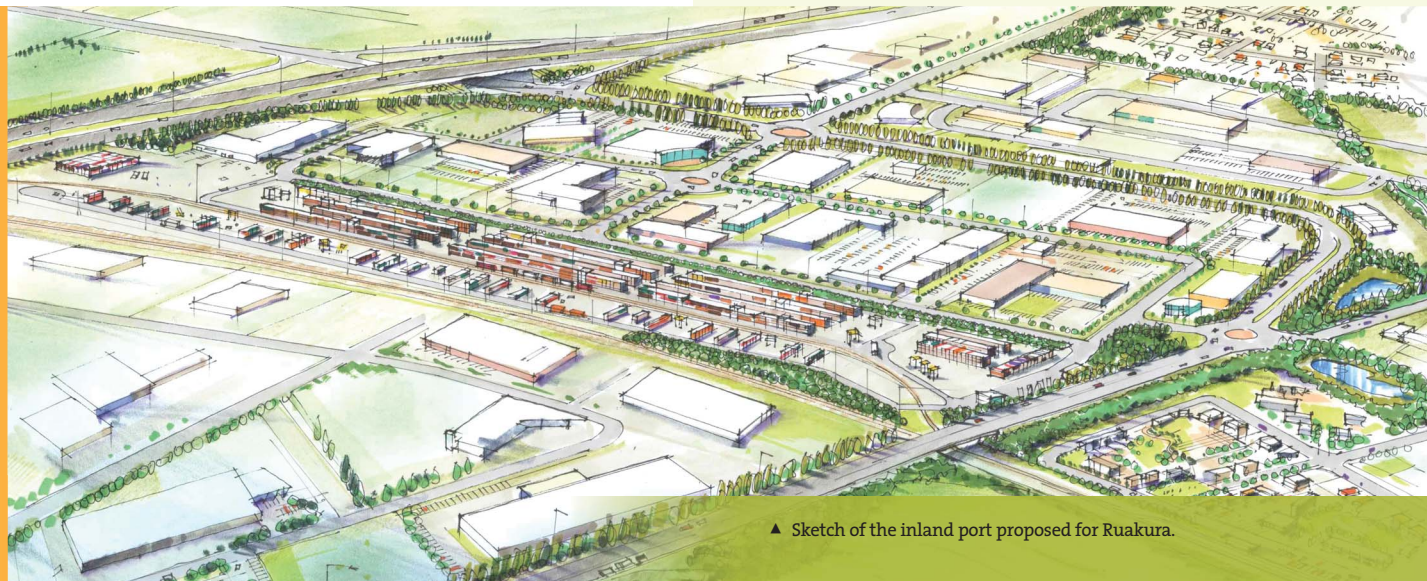
Photograph by Deborah Dewhirst

ILLUSTRATIONS: P2 sketch by Neil Coleman; P 4 & 6 (top & bottom right),

photographs by Deborah Dewhirst; P5 Anderson Park 1932, Alexander Turnbull

Library ATL G-EP-2485-1/2; P6 photograph courtesy Wellington Airport.

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▲ Sketch of the inland port proposed for Ruakura.



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Transmission line gains approval

A new transmission line in the central North Island – a proposal of national significance – has had its designation approved, subject to only one appeal, without referral to a Board of Inquiry.

The new 40-kilometre double circuit 220 kV transmission line between Wairakei and Whakamaru is needed to handle the extra geothermal power generation being built in the area.

Boffa Miskell was commissioned by Transpower to provide environmental services, including preparing the Notice of Requirement for the designation and the Assessment of Environmental Effects (AEE). Boffa Miskell also led the route selection process that resulted in defining the final alignment.

“As the route selection and consultation processes had been so constructive, Transpower decided not to refer the proposal to the Environmental Protection Authority and, instead, remain at a local level of decision-making,” says Boffa Miskell senior planner and project manager Robert Schofield.

“The route selection method was very systematic; carried out in parallel with thorough and informative consultation that was ongoing from 2008 to 2011. Each step was explained to stakeholders, tangata whenua, landowners and the general public, and their feedback helped, in turn, to refine choices and determine the preferred option. By the time of the hearing, nearly all the issues had been addressed and resolved.”

Route selection

A multi-criteria route assessment and selection process was used, based on Transpower’s own methodology (known as ‘ACRE’), but modified so that it was fit for purpose. This method involved

working down in scale from a generalised evaluation of a defined study area, to identifying broad route options, then selecting the preferred route from those options and finally refining the detailed alignment and tower locations.

The multi-disciplinary assessment team included Boffa Miskell planners, ecologists, landscape architects and cultural advisors, as well as agricultural, archaeological and social science sub-consultants and Transpower’s engineers and property advisors.

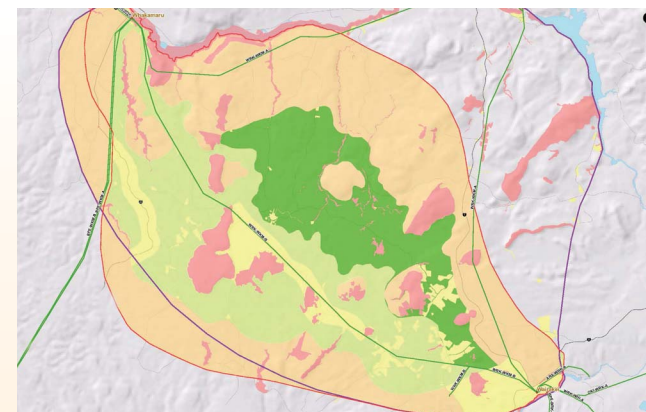
Using defined criteria at each scale of the assessment, the team mapped minor, moderate and major levels of constraint as well as opportunities for positive benefit. ‘No-go’ areas were identified and the possible routes, or combinations of route sectors, were comparatively evaluated for least environmental cost.

“As the new transmission line was replacing an existing smaller line, the route selection process focused on whether there was a good reason to diverge from the existing line route, around which the rural community had developed over the last fifty years,” Robert explains. “The multi-criteria assessment process guided those judgements, including the potential for positive improvements, such as avoiding existing visually prominent hilltop tower locations.”

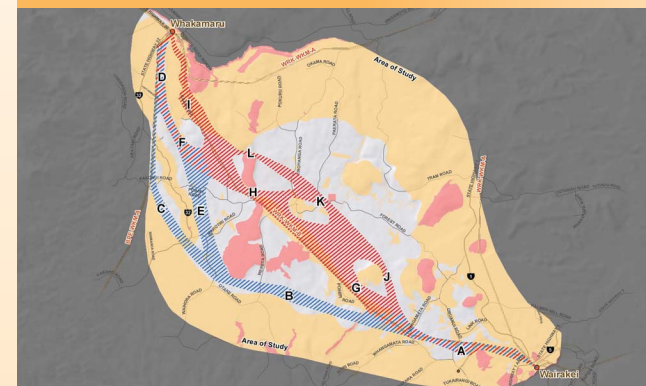
The route designation was approved at the council hearing in April 2011. Subject to the outcome of the one appeal, Transpower aims to have the \$121 million construction project complete by 2013.

CONTACT: Robert Schofield robert.schofield@boffamiskell.co.nz

▲ Boffa Miskell prepared visual simulations to assist in determining the detailed line alignment and tower placement. Here, a simulated 46 metre high tower (centre) is shown beside an existing 39.5 metre tower (left) near Wairakei.



▲ Three levels of constraint (pink & buff) and opportunities for improvement (green) in the study area were mapped when assessing route options.



▲ Route options identified and refined during the assessment process included multi-options and route combinations, mapped here against areas of moderate constraint (buff) and major constraint (pink).

Te Waharoa – the Gateway

Boffa Miskell's new Te Ao Māori training programme, Te Waharoa (the Gateway), was successfully launched in June when Leighton Contractors' senior management team participated in the introductory workshop.

The programme name reflects its purpose; to stand as an information portal. By gaining a strong foundation of knowledge, businesses and organisations are then able to better engage with Māori entities and businesses through an enhanced understanding of, and sensitivity to, Māori culture and protocols.

"The Māori economy is one of the fastest growth sectors within the Aotearoa/New Zealand economy," says Boffa Miskell's Te Hihiri (Cultural Advisory Group) member, Phil Wihongi. "Overwhelming evidence points to long-term success in this sector being greatly assisted by a sound understanding of Māori perspectives and protocols, both cultural and business focussed.

"Te Waharoa is adaptable to meet each client's business area, and offers opportunities to immediately engage with and build relationships with Māori experts."

The workshop was so successful that Leighton Contractors plan to proceed with an advanced workshop, when attendees will be placed in the field with Māori experts, culminating in a marae experience.

Bill Sullivan, New Zealand Manager for Leighton Contractors says, "Our wider management team have multi-national backgrounds so the workshop was an important investment in cultural awareness as well as influencing our business engagement strategy in New Zealand."

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▲ On opening day, cut-out vehicles, cyclists and walkers were placed in Darby Street to show how shared space works.



▲ Mayor Len Brown celebrates the opening of Darby Street.

Darby Street shared space opens

In April, Auckland City Mayor, Len Brown, officially opened Darby Street, the first of Auckland's city centre shared streets.

Live music and other on-street entertainment encouraged people to linger and enjoy the whole public space, as the shared space street concept is intended to do.

Boffa Miskell landscape architect, John Potter, explains, "These environments signal a move away from conventional streets, which are often dominated by vehicles; instead creating streets that encourage people to spend time in, meet, sit, people-watch and generally enjoy the inherent qualities of the street. The space between the built edges of shared space streets is designed to be used more fairly and more effectively by pedestrians, cyclists and motorists. The shared space concept seeks to achieve a better balance between the potentially competing requirements of all users."

After initial trepidation about the effects, local Darby Street retailers are positive about the increased foot traffic they have noticed since the upgrade was completed.

Boffa Miskell is meanwhile continuing to provide design and contract administration services to the Auckland Council in the development of more shared space streets in the city centre, including Elliott Street and similar spaces in the Fort Street area.

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▲ Shared space encourages people to linger and enjoy street-based activities.

Heritage: looking back to look forward



Understanding heritage is fundamental to much of Boffa Miskell's work. Marc Baily, urban planner and heritage adviser, explains why.

Why is heritage important?

"Heritage distinguishes one place from another – it speaks about the place, its people and how they have interacted over time. There are lots of reasons why heritage is important, but increasingly there is a realisation that it makes a difference in today's competitive world. There is a compelling case for recognising the contribution heritage makes to economic prosperity, quality of life, tourism and the sustainability of places."

How would you define heritage?

"Heritage is about considering our cultural landscapes and how they were derived. It's more than historic buildings and listed trees. It includes the inter-relationship between natural and settlement patterns: - how, for instance, the underlying hydrology and landform of a place have influenced patterns of development and, conversely, how settlement has changed those underlying features."

Has there been a shift in thinking about heritage?

"Yes, there's more recognition that heritage is fundamental to sense of place and identity."

"A thematic approach works well to help identify places that are representative of the growth and development of an area. In this way, we can more clearly understand the phases of settlement and development that have contributed to an area's unique identity and avoid over-representation of certain things in heritage recognition."

Is heritage just about looking back?

"It's really a case of looking back *in order* to look forward. In urban planning and design, for instance, the scale, basic form

and inherent character of what exists provides useful clues to help inform decisions about the future.

"This is something the New Zealand Urban Design Forum has been thinking about in terms of New Zealand's particular brand of urbanism. How have our cities come about and what places do we like? In working towards more sustainable development, we might need to more carefully consider those elements of our urban environment that New Zealanders feel comfortable with – perhaps the scale of building or spatial character.

"Where rebuilding is being considered, references to the past can be retained that reinforce local identity; for instance, typical lot sizes, street patterns or orientation to the sun."

So how do you help your clients move forward with heritage?

"We use a lot of different tools and techniques to identify, assess and manage historic heritage, including:

- Heritage strategies
- Heritage policies
- Thematic heritage studies
- Inventories
- Heritage area and character assessments
- Incentive packages
- Guidelines and district plan provisions
- Urban and landscape design public space projects.

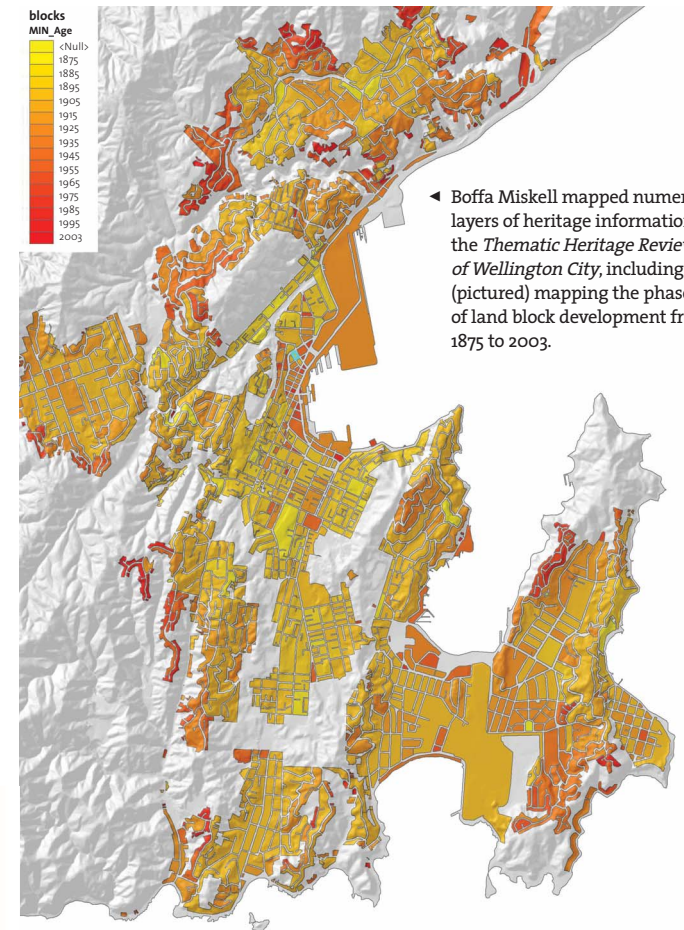
"In applying these tools and techniques we often collaborate with others to ensure that the breadth of heritage is comprehensively covered. When combined with our own multi-disciplinary expertise this often results in a far richer, better informed outcome for clients."

CONTACT: Marc Baily marc.baily@boffamiskell.co.nz

Some examples of Boffa Miskell's heritage project work will be featured in the next newsletter.



▲ In the *Thematic Heritage Review of Wellington City* that Boffa Miskell prepared for Wellington City Council, the carving out of flat space from the steep hills was recognised as an influence on the cultural landscape of the city, as at Anderson Park pictured here in 1932.



◀ Boffa Miskell mapped numerous layers of heritage information in the *Thematic Heritage Review of Wellington City*, including (pictured) mapping the phases of land block development from 1875 to 2003.



Night flying OK'd for rugby fans

Exceptional circumstances – the Rugby World Cup – have warranted the lifting of Wellington airport's night-time curfew on seven crucial nights during the competition.

Special flights have been arranged to enable fans living or staying in Wellington, to fly back to Wellington straight after attending certain Cup games in cities where accommodation will be short. The flights will have to arrive after midnight, when the curfew normally begins, so Wellington Airport sought resource consent to enable the 34 flight arrivals to occur.

Boffa Miskell prepared the resource consent application and assessment of environmental effects, with external specialist acoustic input, and consent was obtained on a non-notified basis.

CONTACT: Hamish Wesney hamish.wesney@boffamiskell.co.nz



Leading the way for urban growth

The development of the Te Awamutu Retirement Village will assist the Waipa District Council in implementing part of its growth strategy.

The 100-unit village/60-bed hospital is being developed by Moana Properties 2006 Ltd on a greenfield site in one of the council's 'Urban Growth Cells' and the anticipated \$40 million development cost will boost the Te Awamutu economy.

Boffa Miskell managed the development's design and successful consenting and is now facilitating negotiations between Moana Properties and the council to upgrade the project's infrastructure so that there will be enough capacity to meet the requirements of the planned urban growth nearby.

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See-through by design

A transparent acoustic barrier bordering the recently widened motorway in St Mary's Bay addresses urban design objectives as well as noise mitigation requirements.

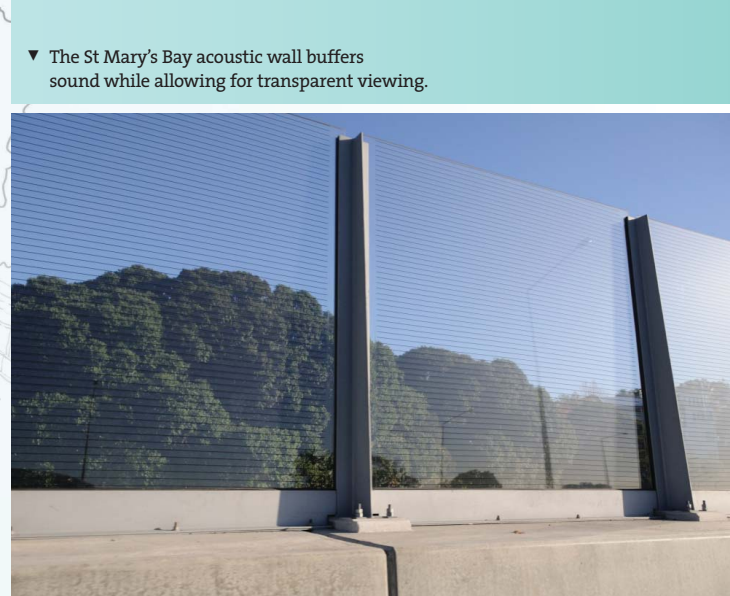
The barrier is part of the New Zealand Transport Agency's (NZTA) Victoria Park Tunnel State Highway 1 upgrade project in central Auckland, which is being constructed by the Victoria Park Alliance. Boffa Miskell is providing urban design and landscape architecture services to the Alliance, which comprises the NZTA, Fletcher Construction, Beca, Higgins Contractors and Parsons Brinckerhoff.

Boffa Miskell saw the barrier as an opportunity to enhance the amenity and gateway character of the St Mary's Bay area, producing 3D models and animations to help the Alliance team conceptualise the design.

The height of the barrier varies from three to five metres. Each panel and steel post is uniquely sized to complement the form of the adjacent St Mary's Bay cliff.

As well as buffering motorway noise from adjacent housing and recreational areas, the transparent panels allow motorists to enjoy views of the historic pohutukawa-clad cliff line. It also allows safety surveillance of the new pedestrian route in St. Mary's Bay reserve which has been developed as part of the project.

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▼ The St Mary's Bay acoustic wall buffers sound while allowing for transparent viewing.

Marc Tomes returns



We welcome back Senior Landscape Architect and Associate Principal, Marc Tomes, who now leads our Wellington design team.

Marc worked in our Auckland office during 2008 and 2009, leading projects such as the *Manukau City Centre Public Domain*

and *Technical Manual*, Hihiaua Cultural Centre in Whangarei and the Albany Cycle Network.

He then spent 15 months in Sydney working in local government as a Senior Landscape Architect and Parks Planning Manager (acting).

Marc's 15 years' experience working in the UK, Australia and New Zealand includes leading large urban regeneration projects, developing open space strategies, designing public spaces, parks, gardens and skate parks, and then taking many of these projects through to completion/implementation.

Marc is thoroughly enjoying being back at Boffa Miskell and is proud to be leading projects, such as open space strategies and sports park master plans, for the Wellington office.

CONTACT: Marc Tomes marc.tomes@boffamiskell.co.nz



Sponsorship

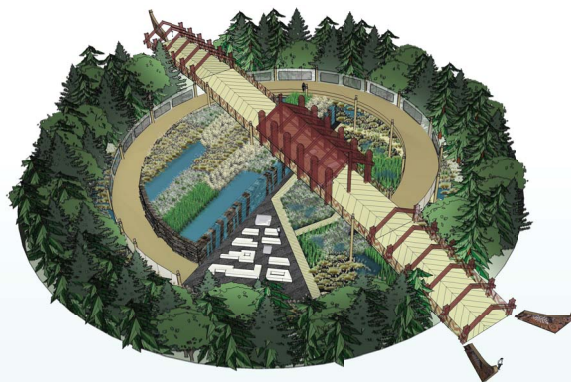
Boffa Miskell is a sponsor of the Project Kiwi Trust, in support of the Trust's community-based efforts to reverse the serious continuing decline in North Island brown kiwi populations.

The wild kiwi population currently halves every decade. If left unmanaged, this decline would result in the swift extinction of New Zealand's most iconic species.

Boffa Miskell director and ecologist, Dave Slaven, has been a passionate supporter of the Trust for many years and is a patron.

"Project Kiwi Trust is a flagship for kiwi conservation nationwide, combining BNZ Operation Nest Egg hatching and rearing with intensive predator control that benefits the entire ecosystem," he says.

To find out more see www.projectkiwi.org.nz



Jinzhou competition finalist

Boffa Miskell is amongst 20 finalists in a world-wide competition, whose designs will be built for the 2013 World Landscape Art Exposition in Jinzhou, China.

The competition is being run by the International Federation of Landscape Architects in association with Jinzhou City, and the winners will be announced at the Expo's closure.

The 'Wetland Waka' garden will be centred on a stylised water-purifying wetland and will be traversed by a boardwalk evocative of a Māori waka.

Jinzhou-based Chinese landscape architects will prepare the construction documentation and oversee the construction. The constructed designs will remain permanent features in a new 139-hectare public park which is being developed around the Expo site in Jinzhou City.

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EPA panel of supplier appointments

More than 30 Boffa Miskell experts have been accepted on to the Environmental Protection Authority (EPA) panel of service providers. The panel comprises suppliers with appropriate skills and experience to support and advise the Authority, as required, in its role of administering the national consenting process under the RMA.

Boffa Miskell's supplier expertise includes planning and resource management, cultural advice, ecology, landscape and visual assessment, and urban design.

Putting it in on paper

Conference presentation

'People, Plants and Parks' New Zealand Recreation Association Conference, May, Wellington. Landscape architects Rachel de Lambert and Marc Tomes presented a paper entitled 'Future Garden Design' about how future generations will want to use and enjoy the amenity landscapes of public gardens. They discussed the design, management and programme approaches that should be adopted now to deliver the right sort of public gardens for the future.

Book contributor



Boffa Miskell has contributed a chapter to 'Native By Design; Landscape Design with New Zealand Plants', which will be published by the Canterbury University Press in August/September. Edited by Ian Spellerberg and Michele Frey, it will showcase a number of New Zealand's leading landscape architects.

As landscape architect Sam Bourne explains, the Boffa Miskell chapter focuses on the Watercare Walkway and Mangere Waste Water Treatment Plant project – one of Auckland's largest construction projects.

"The design of green infrastructure is becoming increasingly part of Boffa Miskell's work and at Watercare, native plants have been utilised at the scale of city infrastructure. Worldwide, cities are grappling with what options they have for redeveloping their post-industrialised and infrastructure landscapes for the benefit of the city residents and the local ecology. This project is a unique Auckland example."

The chapter explains how native plants were used in the project, the principles applied, and how ecological restoration can involve the local community.

Ecology an important consideration at Waterview

Boffa Miskell ecologists have contributed wide-ranging expertise to the Board of Inquiry that approved, in July 2011, the proposed SH20 Waterview Connection motorway project which completes the Western Ring Route in Auckland.

The Waterview Connection, which will link two sections of Auckland's motorway network, is one of the New Zealand Transport Agency's (NZTA) seven Roads of National Significance. It will extend from the Maioro Street interchange to the Great North Road interchange, running beside Oakley Creek and through twin tunnels. From there, SH16, which spans the upper Waitemata Harbour to Te Atatu and runs through the Motu Manawa (Pollen Island) Marine Reserve, will be upgraded and widened.

Boffa Miskell ecologists assessed, for the NZTA, the potential effects of the proposal on

vegetation, the marine environment, freshwater environments and lizard populations, and presented expert evidence at the Board of Inquiry hearing.

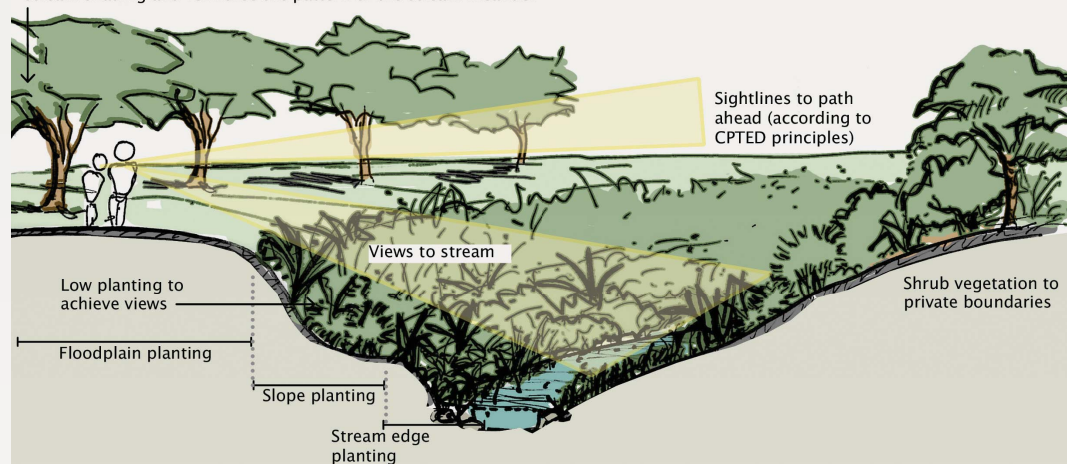
Boffa Miskell marine ecologist, Dr Sharon De Luca, says the NZTA fostered a team approach that greatly aided the development of innovative approaches to the mitigation of effects. For example, the project team worked hard to ensure road runoff throughout the coastal portions of the project will be treated to higher than normal standards, in recognition of the Marine Reserve's sensitivity.

Similarly, Boffa Miskell ecologists worked collaboratively with the stream works engineers, hydrologists, landscape architects and open space experts to prepare the Oakley Creek Rehabilitation Guidelines; an integrated framework for restoring the creek within the project area. In recognition of this successful outcome, Auckland Council recently commissioned Boffa Miskell to extend the guidelines to other parts of Oakley Creek.

Dave Slaven, Boffa Miskell Director and ecologist, has been involved with the proposal since the early feasibility investigations began in 2000.

"It's been a very complex project from an ecological point of view, involving a myriad of tricky issues and a huge amount of work.

Canopy trees at outside bends to prevent upper bank erosion, provide stream shading and reinforce the pattern of the stream meander



▲ Oakley Creek restoration concept sketch, showing the integration of ecological, hydraulic, aesthetic, safety and public access principles.



▲ Oakley Creek discharges into the Waterview Estuary, where the marine reserve habitat supports mangroves on the intertidal fringes, invertebrates and fish.



▲ Targeted for restoration: areas of rock-lined channel in Oakley Creek that currently have little, if any, riparian vegetation, aesthetic appeal or easy public access.

We were very pleased that the thoroughness of our work was reflected in the Board accepting the vast majority of our ecological findings and recommendations, including

all of our proposals for ecological improvements to the existing environment."

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