

Boffa Miskell



Sustainable
expansion

03

Cornvita New Zealand redevelops its headquarters to sustain its growth.

— SEE PAGE 3.



Mobile data

05

A user-friendly tool for accessing and uploading data in the field has multiple benefits.

— SEE PAGE 5.



Directing the traffic

06

Bold plans are recommended to resolve competing transport demands in Auckland's CBD.

— SEE PAGE 6.

autumn²⁰¹⁴

34
issue number

Boffa Miskell
news



Editorial:

The foundation of innovation

As the projects featured in this edition of *Boffa Miskell NEWS* show, innovation is inherent in Boffa Miskell's work through all our professional disciplines. Yet, innovation is only as good the currency of our methods, and the quality of the information we gather.

An exciting constant in these increasingly 'Cloud'-based times is the rapid evolution of the technology we use to gather, interpret and present our work. Taking the lead in testing and developing new technologies and making them accessible to us are the behind-the-scenes (but crucial) specialists in what we call our 'digital environment services' (DES). Our DES team is responsible for our GIS spatial mapping and related spatial information analysis tools, including field based mapping and data collection. With their help, we set up and compile the spatial databases that are the foundation of the information gathering and research involved in many of our clients' projects. From this information they produce the highly accurate visual simulations we use in

public consultation and expert evidence, and the high quality presentation material that help our clients communicate their project objectives and outcomes.

And, of course, DES connects us all to information wherever we need it via the Cloud.

Our digital environment services benefit you, our clients, both directly (as in the river data story on page 5) and by enabling our professionals in other disciplines – be it planning, urban design, ecology, landscape planning or cultural advice – to focus on developing the creative approaches and critical thinking that your diverse projects demand.

Stephen Fuller, Director :: Science & Technology

Boffa Miskell NEWS

autumn²⁰¹⁴

This newsletter is published by Boffa Miskell Ltd. Back issues are available on www.boffamiskell.co.nz.

COVER: Central Park Flats, Wellington. The community courtyard was designed by Boffa Miskell for the Wellington City Council. Photograph by Kevin Hawkins.

ILLUSTRATIONS: P5, lower left, courtesy Greater Wellington Regional Council.

Edited by: Shona McCahon. Designed and produced by: DNA



Receive *Boffa Miskell NEWS* electronically:
email dianne.skeltton@boffamiskell.co.nz



Proposed Auckland Unitary Plan (PAUP)

In late February, a flurry of activity in our Auckland Office saw staff preparing and lodging submissions on clients' behalf to meet the deadline for initial submissions on the PAUP.

The Plan process is a significant one for Auckland and the community, with some provisions having immediate effect and some new approaches heralding intensified activity to meet population growth and demand.

To assist clients Boffa Miskell is maintaining a keen awareness of the process across the breadth of Plan topics and will provide updates to clients as the Hearings Panel advances its work.

All submissions will be available on the Auckland Council website in May 2014 and will be summarised before a further submission period will be notified. It seems likely that hearings will take place in 2015 and 2016.

CONTACT: Carey Pearce carey.pearce@boffamiskell.co.nz



Ecological baseline informs the future

Before embarking on post-earthquake rehabilitation of sites in Christchurch's Avon River Precinct, it was important to establish a baseline of ecological information for later comparison.

So, last November, Boffa Miskell ecologists surveyed the macro-invertebrate and fish communities as well as the in-stream and riparian habitat conditions at sites destined for rehabilitation works. Information was also gathered at comparative 'control' sites upstream of the precinct and beyond the works.

The work was commissioned by the Christchurch Earthquake Recovery Authority (CERA), in conjunction with other work being done for Christchurch City Council and Environment Canterbury. The data will be used for comparison with further survey data gathered after the works are complete to gauge the extent of any improvement in ecological conditions.

CONTACT: Tanya Blakely tanya.blakely@boffamiskell.co.nz

▲ Native bluegill bullies (*Gobiomorphus hubbsi*) were found in this part of the Avon River, which CERA will rehabilitate in the future. A threatened species (at risk, declining), they love fast flowing cobble-bottomed stream habitats.

▼ Comvita visitor facilities lead through to the administrative headquarters and manufacturing area. Storm / waste water treatment areas obscured by trees (mid-left).



New HQ for Comvita New Zealand

Over the last two years, Boffa Miskell has assisted natural health and beauty products company, Comvita, to redevelop its Bay of Plenty headquarters.

With a diversified product range and exports to 18 countries, Comvita realised it would need to expand its administrative and manufacturing facilities in the small settlement of Paengaroa. The company purchased six hectares of adjacent rural land and then engaged Boffa Miskell to help it create a business campus that would accommodate its own growth as well as complementary businesses.

Structure plan

The first step was to obtain the necessary planning approvals.

“Comvita needed a comprehensive planning framework that would ensure sustainable staged development while protecting the quality of the surrounding environment,” says Boffa Miskell planner, Matt Allott.

“We recommended incorporating a structure plan into the Western Bay of Plenty District Plan through a Plan Change process.”

The resulting plan, which was approved in 2012, includes a mix of commercial and industrial zoning together with a site-specific suite of planning provisions.

Campus development

Stage 1 construction of the overall master plan was completed in December 2013. The existing visitors' centre was redeveloped alongside a new public plaza, site circulation was established and separate visitor and staff parking areas constructed. Stormwater management was incorporated into the design, including a large rain garden, perimeter mounding to contain runoff, a swale system and stormwater retention ponds.

Boffa Miskell landscape architect, Morné Hugo, says the main design challenge was to balance the aesthetic requirements around public and visitor spaces with the practical issues relating to stormwater management, wastewater, access and accessibility, lighting, security and the budget.

“The project was guided from an early stage by the structure plan but we had to carefully check all design decisions for compliance against the planning framework. A good working relationship with Spiire civil engineering sub-consultants also helped.”

On-site water treatment

A big problem for Comvita was the prospect of having to truck out its waste water for treatment at a municipal facility. They asked Boffa Miskell ecologist, Louise Clark, to help.

With assistance from an environmental engineer and industrial chemist, Louise developed an integrated on-site system to treat both the 'domestic' and production-related wastewaters, compiled the resource consent information and continues to monitor and refine the system to maximise its performance.

Comvita, she says, has “shown great commitment to its environmental ethics in choosing a system of this type,” which uses natural systems, including floating treatment wetlands and disposal via onsite irrigation.

For his part, Comvita plant and site engineer, Jason Simmonds, says the company's interactive relationship with Boffa Miskell contributed to the successful outcome – including the local community's endorsement of the changes.

CONTACT: Morné Hugo morne.hugo@boffamiskell.co.nz



▲ The floating treatment wetlands: plant roots growing beneath floating platforms provide an effective biological wastewater treatment system.

Christchurch rebuild: the work goes on

Transforming the residential red zone

After the 2010 / 2011 Canterbury earthquakes, when residential red zones of areas unsuited for rebuilding were defined, decisions were required as to how the 'red zoned' land would be cleared and then managed until decisions are made about the future use of that land.

CERA (the Canterbury Earthquake Recovery Authority) engaged Boffa Miskell in 2011 to assist with the preparation of management options for the properties where owners in the Christchurch, Brooklands and Waimakariri areas had accepted the Crown offer to purchase.

Boffa Miskell brought to the task its expertise in ecology, landscape architecture, mapping / spatial analysis, cultural advice and biosecurity. Working with key stakeholders, the team gathered and analysed various layers of information to ascertain appropriate clearance treatment options and management techniques.

The options needed to address CERA's key objectives. Clearance methods had to be practicable and provide for the retention of amenity and ecological values where practical. Then, safe, cost effective land treatment was needed to establish secure, easily maintained areas in such a way that future land use would not be impinged.

Due to the fragmented insurance settlement process, implementation of the preferred interim treatment options is only now gaining momentum.

"Until the end of 2013 there were very few large tracts of red zone land available for interim treatment and that was challenging," says Boffa Miskell landscape architect, Mark Brown. "However, we're now starting to see recommended outcomes achieved."

Those outcomes include the retention of indigenous and valued amenity vegetation and recognition of known historical and cultural features, as well as treatment options that are appropriate to the new ground conditions and to the surrounding communities.

So far, the interim treatment approach has been well received by stakeholders and the general public. Implementation will continue throughout 2014.

CONTACT: Mark Brown mark.brown@boffamiskell.co.nz

▼ A typical red zone site after house removal: changed ground conditions and vestiges of former gardens.



Anchor projects

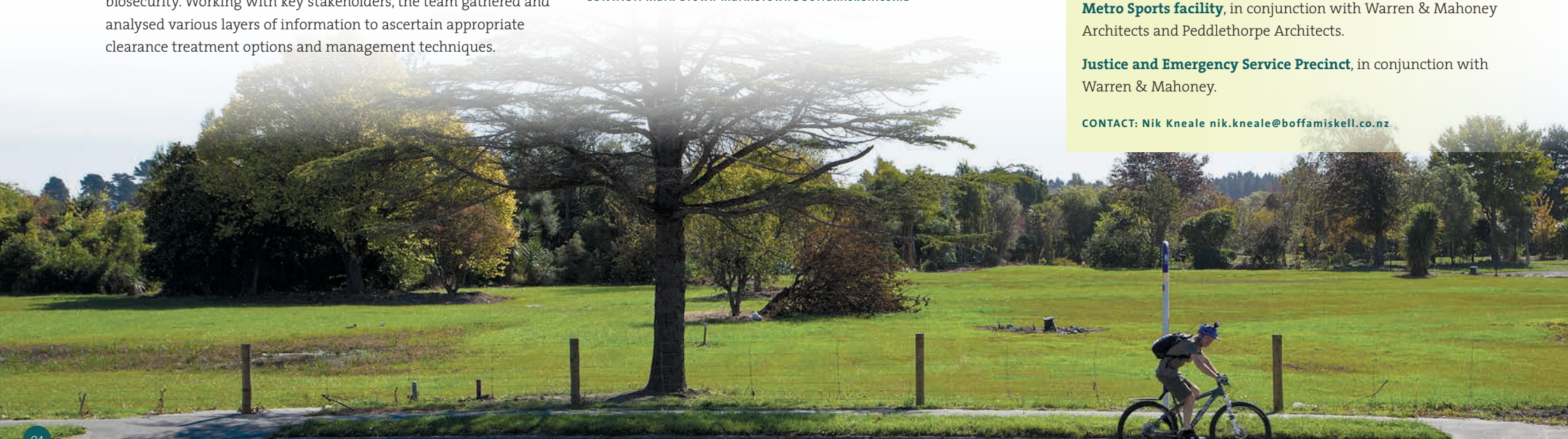
Boffa Miskell urban designers, landscape architects and planners are being kept very busy with several of the 'anchor projects' identified in the Blueprint for the Christchurch Central Recovery Plan (see *Boffa Miskell NEWS* 29).

Te Papa Ōtākaro / Avon River Precinct, in conjunction with Opus.

Metro Sports facility, in conjunction with Warren & Mahoney Architects and Peddlethorpe Architects.

Justice and Emergency Service Precinct, in conjunction with Warren & Mahoney.

CONTACT: Nik Kneale nik.kneale@boffamiskell.co.nz



▲ Remedial interim treatment has involved re-contouring and re-grassing around retained plantings to create large open spaces where houses were before.

Adding data adds value

A request to make GIS river data more accessible for stakeholders led to a further field data tool being added, with considerable benefits.

“Originally we asked for a way to see layers of GIS river information on mobile devices in an easily used, visually appealing format, when out working with stakeholders,” explains Alistair Allan, Senior Projects Engineer, Flood Protection at Greater Wellington Regional Council. “That idea expanded when Boffa Miskell suggested that we could also upload information directly from mobile devices, to avoid having to enter field data again back in the office.”

Boffa Miskell was engaged to develop the new GIS tool for use on the Wairarapa-based *Te Kāuru Upper Ruamāhanga Floodplain Management Plan* project.

The starting point was to interview key stakeholders and convert available information on recreation, cultural, heritage, landscape, ecology and other values into mapping layers, using ArcGIS Online. This was then expanded by further desk top and field based assessment. Boffa Miskell used this database to support a phase one report, setting out environmental values associated with the upper Ruamāhanga River.

How it works

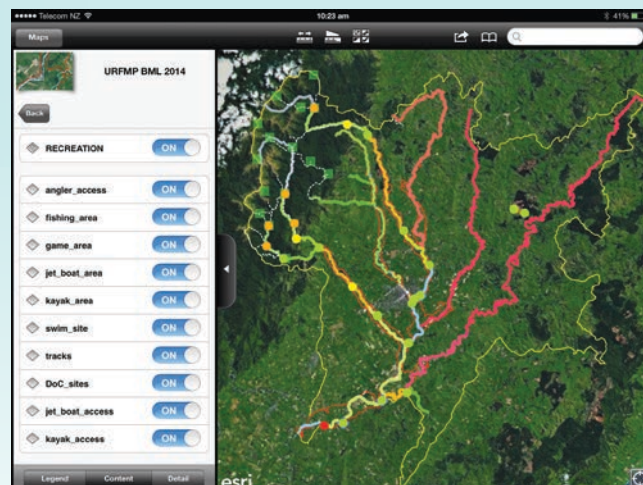
Users log in on their iPad devices to access the database, which is published to the ‘cloud’. They can then access a series of map layers, which can be turned off and on via a simple menu. A blue dot locates the user within the map.

GIS knowledge is not required to use the tool, which is made more user-friendly still by using non-technical language. Authorised users can update information direct to the database from wherever

they are, by adding points and polygons representing location-specific information and uploading photos.

“This tool has gained a lot of support in Council at both the officer and political level,” Alistair says. “We’ve been gathering this sort of information for years but it’s now been made easily accessible to everyone and we’re keen to develop more datasets for other rivers in the region.”

CONTACT: Rhys Girvan rhys.girvan@boffamiskell.co.nz



▲ The map layers overlay an aerial photograph, and a simple menu (left) enables users to turn the layers on and off.

▼ George Harley, Greater Wellington Project Engineer, accesses data on his mobile tablet while at work near the confluence of Ruamāhanga and Waipoua Rivers.



▼ Extensive *Carex secta* (purei) sedgelands at the Toretaputahi wetland.



Search and rescue

When looking for a vulnerable wetland to protect, where does one start?

This was the question facing Boffa Miskell ecologists last year, when engaged by Contact Energy to identify a suitable wetland to enhance and protect in mitigation for the change in wetland habitat that would result from re-consenting the Waikato-based Ohaaki Geothermal Power Plant.

The answer was to first make good use of existing information by analysing GIS wetland soil maps and the Waikato Regional Council's data base of known wetlands. Having identified 19 possible sites, the ecologists then carried out field surveys and ranked the sites according to criteria specially developed to address the mitigation requirements.

The Torepatutahi wetland near Ohaaki was selected. Although it is a relatively young wetland lacking in diversity, it ranked as having significant potential for biodiversity gains that would not occur without intervention. It also has potential to be the North Island stronghold for the swamp nettle, which is 'at risk, declining' conservation status.

Boffa Miskell has just completed a management plan to guide the future improvement of the wetland's ecological values and secure its long-term protection.

CONTACT: Vaughan Keesing vaughan.keesing@boffamiskell.co.nz



▲ Fanshawe Street, before and after: space will be reallocated to reduce vehicle lanes in favour of an urban busway and high quality pedestrian connections.

Bold directions for inner city transport

How are bold decisions made for future transport needs in already congested city centre streets? – By recognising the need for decisive action, creative thinking, stakeholder involvement and rigorous analysis.

This was the approach taken in the City Centre East West Transport Study (CEWTS) that was developed in 2013 for Auckland Transport by Aurecon transportation planners and engineers, and Boffa Miskell urban designers.

The study was commissioned to resolve complex competing demands for space in all the major east-west streets in Auckland's city centre, taking account of Auckland Transport's radical restructure of the bus network and key projects from Auckland Council's city centre master plan.

Boffa Miskell urban designer, Stuart Houghton, says analysis soon showed the streets in question are currently very similar in function, spatial cross-section and appearance, and designed to maximise vehicular capacity and traffic flow. Instead of trying to accommodate competing transport modes within these streets, the hard decision was made to reallocate space and funding to what the project team described as an 'integrated multi-modal network'.

"Given the reality of limited space we quickly realised that more specialisation in transport function would be required in these big streets. Some would need to be major public transport routes, others would become walking and cycling spines associated with signature public spaces, and others would remain vehicular through-routes."

A particular challenge that Stuart foresees in implementing the recommendations will be how to design the streets that combine bus services and pedestrian movement, given that the two are often perceived as incompatible. Future designs will need to bring about a shift in people's perception through high-quality workable upgrades.

Urban design in transport planning

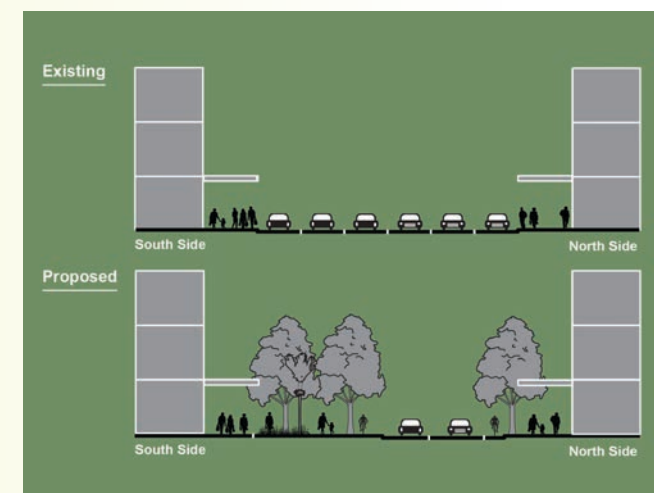
Stuart says it was valuable for Boffa Miskell's urban designers to work closely with Aurecon's transport engineers and planners at all scales, from the 'big picture' strategy and network thinking, to land use planning and the detail of what makes streets successful.

"Bringing together the different specialist knowledge and concerns helped to fully understand the key success factors in providing for different transport choices including pedestrian, cycle, transit, car and goods movement."

Auckland Transport's Principal Transport Planner, Sam Corbett, says Boffa Miskell's thorough analysis, using GIS and empirical techniques, provided a clear foundation for the urban design recommendations.

"Also, helpful were the spatial planning and visualisations that have been extremely effective in communicating how the recommendations will translate on the ground."

CONTACT: Stuart Houghton stuart.houghton@boffamiskell.co.nz



▲ Pedestrian movement and activity will be prioritised in Victoria Street, with a significant change in space allocation from 30%/70% pedestrian/general traffic to 63%/11%/26% pedestrian/cycle/general traffic.

Canterbury architecture winners

Two projects which Boffa Miskell have been associated with received awards in the NZIA Canterbury Architecture Awards 2013.

Caroline Bay Aquatic Centre, Timaru, designed by Boon Goldsmith Bhaskar Brebner Team Architecture, received an award in the Public Architecture category. Boffa Miskell designed all the outdoor areas around the centre.



St Margaret's College Gymnasium and Chapel, Christchurch,

by Athfield Architects, received an award in the Education category. Boffa Miskell designed the adjacent chapel plaza, implementing part of the Campus Landscape Master Plan – also by Boffa Miskell – which was developed after the Canterbury earthquakes.

▲ St Margaret's College chapel plaza.

New associate directors

We are pleased to announce that **Sarah Collins** and **Michael Hawes** have been appointed Associate Directors of Boffa Miskell. The appointments reflect their professional reputations and the significant leadership roles they already have in the company.

Both are landscape architects known to many clients for their lead roles in major projects not only in Auckland, where they are both based, but also elsewhere in the country.



Sarah Collins & Michael Hawes

New Zealand Planning Institute Award

The Rolleston Town Centre and Foster Recreation Park Masterplans (featured in *Boffa Miskell NEWS* 33), were awarded for best practice in the Strategic Guidance and Planning category of the New Zealand Planning Institute's 2014 awards.



Boffa Miskell was the master planning / urban design consultant to award recipient, Selwyn District Council, also working with recreation and leisure consultants Global Leisure Group on the project. The plans will guide future development of important public spaces and facilities in the rapidly growing town.

The award judges said both master plans had achieved a number of best practice outcomes in planning, recreational planning and urban design, with a high level of public support.

"It is an excellent example of a collaborative approach to visioning and forward planning, bringing together a range of disciplines and a number of diverse (and conflicting) public and private sector aspirations."

Wellington office to new premises

Our Wellington staff are settling in after relocating at the end of April to the Huddart Parker building in Post Office Square. The heritage building has recently been strengthened to 100% of the new building standard and provides a comfortable, naturally ventilated and energy-efficient space in which to work. The move fits with Boffa Miskell's ethic and interest in both heritage values and sustainability.

The new address is:

Level 4, Huddart Parker Building
1 Post Office Square, Wellington 6011

Phone numbers and PO Box number remain the same (see back cover).

Sponsorships

Boffa Miskell regularly supports, through participation and sponsorship, events that promote understanding or enhancement of the environment.

'Mountains to the Sea', New Zealand Planning Institute Conference, April 2014, Queenstown. Boffa Miskell was a sponsor of this event, which focused on freshwater, land use and adaptation issues. Several of our planners attended and landscape planner, Yvonne Pfluger, presented a paper entitled 'Riverscape and Flow: Flow Related Perception and Natural Character Research' on the findings from FRST-funded research that Boffa Miskell carried out on perceptions of different river flows. The findings have also been published in the *Riverscape and Flow Assessment Guide* for councils and practitioners that can be downloaded from the 'Water' section at www.boffamiskell.co.nz/projects.php.

Bird Hide opening, Queen Elizabeth Park, Paekakariki. Boffa Miskell was pleased to sponsor the bird hide which was officially opened at Queen Elizabeth Regional Park in January 2014, to mark the park's 60th anniversary. Boffa Miskell has been involved with many projects in the park and has recently been assisting the Greater Wellington Regional Council develop concepts for managing the park's multiple natural, cultural and historical values (see p.4 *Boffa Miskell NEWS* 29).



▲ The bird hide at Paekakariki enables bird watchers to glimpse at the many bird species that frequent the marine wetland at Queen Elizabeth Park.

Auckland view shafts through another lens

When contentious landscape planning issues come up for debate, robust assessment methodology helps inform stakeholders and decision-makers alike.

A case in point is how important view shafts in the Auckland urban area are identified and their protection integrated with other planning objectives.

Boffa Miskell has recently presented expert evidence on behalf of several clients in relation to the Auckland view shaft provisions contained in proposed Plan Changes (339 and 43) to the Isthmus and Waitakere sections of the Auckland District Plan.

The issue has a long history dating back to 1973, when provision for view shaft protection was first included in the then Auckland Regional Plan.

"It's a complex situation involving not only past history and the way the urban environment has changed, but also the future and how to accommodate the residential intensification objectives in the Proposed Auckland Unitary Plan," says Boffa Miskell planner, Stuart Bracey.

Given the complex array of factors involved, a Boffa Miskell team of landscape planners, planners, video and GIS specialists developed an assessment methodology integrated with statutory planning analysis.

▼ Analysis of the view shafts to One Tree Hill showed varying degrees of visibility in the present-day landscape.



The assessment included such considerations as the context from which views are seen, comparison of the identified viewpoints with other viewpoints around the city, the extent to which the view shafts have been compromised by change (buildings and trees), and the potential for conflict between view shaft protection and urban intensification objectives.

GIS and video analysis

The GIS and video analysis was fundamental to evaluating the current view shafts and their role in the Auckland landscape. Up-to-date spatial information was used to accurately model both recently built and consented unbuilt form in different scenarios and assess the visibility of Auckland's volcanic cones.

For Westfield Group, in-motion rather than static visualisation techniques were used to demonstrate the nature and quality

of views experienced when crossing the Newmarket viaduct. Boffa Miskell landscape architect, Rachel de Lambert notes that, "use of a fixed image provides a poor representation of the real nature of effects and can be misleading."

According to Stuart, the GIS and video analysis clearly illustrated how the existing view shaft protection tools directly compromised residential and urban redevelopment aspirations for clients like the Housing New Zealand Corporation and Westfield Group.

"In developing a rigorous methodology for our clients, we hope to have contributed usefully to identifying appropriate mechanisms for protecting and enhancing important views in a growing city."

The hearings decisions are pending.

CONTACT: Stuart Bracey stuart.bracey@boffamiskell.co.nz

Boffa Miskell



WEBSITE: www.boffamiskell.co.nz
EMAIL: info@boffamiskell.co.nz



Receive *Boffa Miskell NEWS*
electronically: email
dianne.skelton@boffamiskell.co.nz

TAURANGA

Level 2, 116 on Cameron,
cnr Cameron Road and Wharf Street,
TAURANGA 3110
PH: 09-571-5511

AUCKLAND

Level 3, IBM Centre,
82 Wyndham Street,
AUCKLAND 1010
PH: 09-358-2526

WELLINGTON

Level 4,
Huddart Parker Building,
1 Post Office Square,
WELLINGTON 6011
PH: 04-385-9315
FAX: 04-384-3089

CHRISTCHURCH

Ground Floor,
4 Hazeldean Road,
CHRISTCHURCH 8024
PH: 03-366-8891

SHANGHAI

Level 4, Wukang Road,
SHANGHAI 20031
PR CHINA
PH: +86 21 6426 9886
FAX: +86 21 6426 9890