

We keep moving forward, opening new doors, and doing new things, because we're curious and curiosity keeps leading us down new paths.

- Walt Disney

From first light...

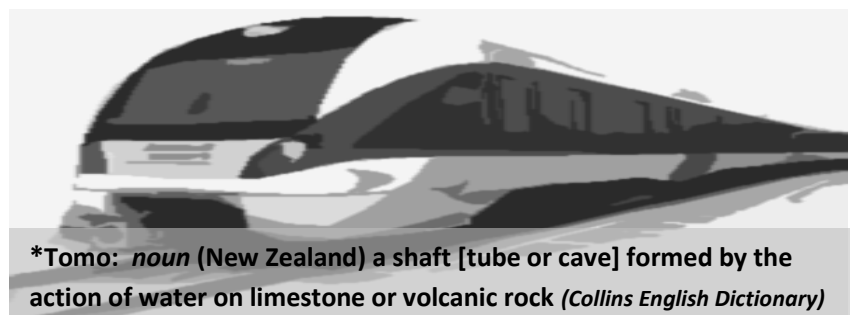
Gisborne District Council is proactively implementing a programme of service delivery and outcome improvements to support the growth and vibrancy of the district. Anguillid has been collaborating with Council in exploring the application of complexity science principles to the environment and policy group performance. This has not focussed on refining or improving best practice processes, but rather it has looked into the wider organisational and external interfaces that shape the 'system' as a whole.



This is an exciting opportunity for Anguillid. Although at a preliminary stage, this has the potential to assist Council in delivering its aspirational objectives by building adaptive capacity and new team behaviours.

... to the light at the end of the tunnel

And yes, it is a train! It has been a few years since our project for ARTA in which we assessed possible EMU maintenance sites, so Anguillid is pleased to now be able to report that we have been assisting Auckland Transport with the City Rail Link (CRL) Project. The CRL is an approximately 3.4km underground rail line that is proposed to link Britomart to an existing above ground line at Mt Eden. Anguillid has been responsible for the initial drafting of environmental management plans, strategic environmental advice, and reviews of the technical reports and environmental and planning documentation prepared to support the Notices of Requirement. Instead of the metro or tube, perhaps one day we can ride the 'Tomo'*...



*Tomo: *noun* (New Zealand) a shaft [tube or cave] formed by the action of water on limestone or volcanic rock (*Collins English Dictionary*)

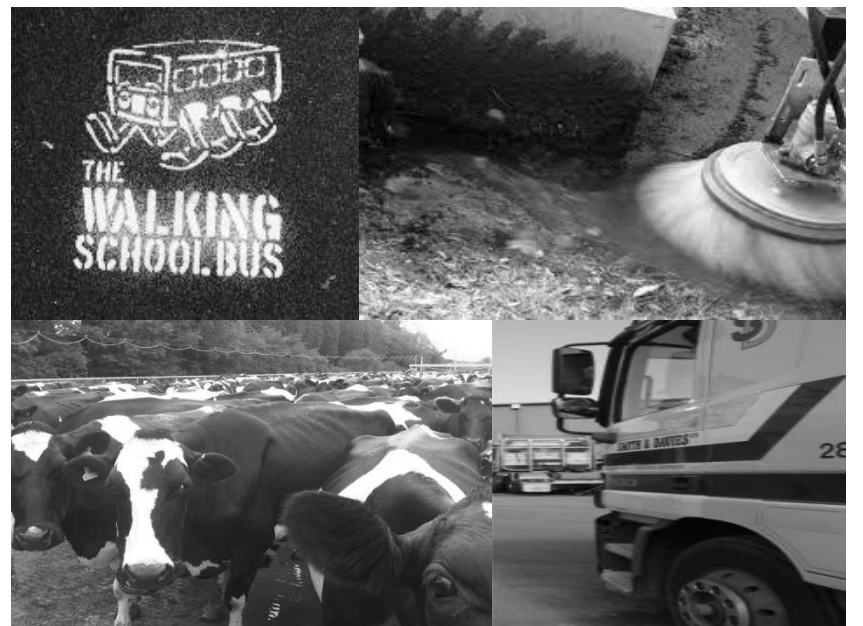
Active development

With the release of the Auckland Plan, and in anticipation of the release of its Integrated Transport Programme, Auckland Transport has been revising a number of its earlier plans and programmes. The Active Transport Plan was one such document to be reviewed and revised by Anguillid late last year.

On another active development front, Anguillid is continuing to work with Eco-Stock Supplies, providing environmental audits and advice as they continue to evolve. It is great to see so much waste food converted to a useable, up-cycled product rather than simply be landfilled.

Anguillid has also been quietly working away with long established local transportation firm Smith and Davies on stormwater matters associated with their head office site in Northcote. This has expanded to include 'house keeping' and environmental management initiatives in response to Council industrial and trade activity requirements. As part of this Anguillid has developed an environmental management system and is supporting the implementation of good site management practices through the roll out of system tools and on site improvements.

Another Council actively seeking to improve the efficiency and effectiveness of its operations is Whangarei. Anguillid prepared a comprehensive environmental management system for road maintenance activities within Whangarei District. This provided for individual maintenance activities as well as network wide contracts and performance requirements. In developing the system, Anguillid was mindful of the broader context of the road network and activities. We therefore provided for requirements within wider contract and quality management structures as well as provision for the control and co-ordination of activities to minimise disruption to the community and anticipate and prevent environmental effects in the first instance. *"Anguillid addressed the process as a whole and has recommended a pragmatic and workable framework."* Says Simon Gough, Council's Roading Asset Manager.



Happy acorns

Earlier this year Anguillid turned not tahi, rua, toru, or wha, but rima - five! We were delighted to be able to celebrate this with a number of our alumni, and collaborative colleagues and clients – not to mention some excellent jazz. The adage 'time flies when you are having fun' really does apply – and everyone seems to have enjoyed Anguillid's journey so far.



A really touching part of the celebrations was the phenomenal YouTube and Prezzy presentation put together by alumni Jenny Chu with amazing contributions and assistance from Lucy McKenzie (alumni), Anthony Blom (yes, he's allowed!), Andy Irwin, and Rebekah Pokura-Ward. We really value the long term relationships we have with our team, colleagues and clients alike and value the way they 'own' and shape Anguillid. Each and every one is a 'happy acorn' – to quote Jenny's paraphrasing of Emerson's *"the creation of 1000 forests in one acorn"*.

So what does the future hold for Anguillid? Well more on the shorter term over the page, and hopefully (as we were told in our birthday video) more of this: "Anguillid doesn't just *do* a project... it establishes a way of doing things for the future..."



Wicked!

To completely show my age, 'wicked' used to mean awesome. This of course would have horrified or perhaps bemused an earlier generation for whom it was more likely to be associated with witches that feared buckets of water. Wicked, in the context of problems at least, now refers to those cannot be resolved in sequential steps or linear processes or for which the solution cannot be found until the answer is known. Despite the emergence of this new meaning of wicked, this of course is not a new dilemma in itself; during the renaissance Galileo observed that "all truths are easy to understand once they are discovered; the point is to discover them".

In the last edition of Anguilliform, we floated (ha!) the chaos butterfly, which of course goes hand in glove with wicked problems. And my, what a response. We usually get lots of positive feedback on Anguilliform, but this thought piece really struck a chord that resonated with such a large number of you. Thank you for all the positive comments and discussions generated as a consequence. It is abundantly clear that there is a drive to find a different way of doing things so keep the discussions going – it is great to hear all the ideas.

As you can see from the articles in this edition, complexity and wicked problems are something that fascinates us here at Anguillid. But is this just a case of making things complicated? No, I don't believe so. Rather it is an understanding that context is everything and that therein lies both the complexity as well as the humanity of engineering that I touched on last time. The challenge is to embrace

this complexity and to capture its essence - to present this in a simple way, but without losing meaning. This has been a challenge in the past with emergent technology that created tools that focus on the technology system itself or disaggregates down to widget level without also capturing the interfaces, non-standard components, or the context. We now have the technology - but are we changing our thinking?



We're growing!

Although (sadly) a couple of our staff departed late last year, Anguillid is still growing. Growth is critical to sustaining our business and as with everything Anguillid we this a little differently. We believe growth includes development and evolution (amongst other things) so aptly – now that we are five – we are off to school! Cambridge in fact, and yes that's the one in the UK.

Managing Director, Carron Blom, has been fortunate enough to have been offered the opportunity to undertake a PhD in the Centre of Sustainable Development at the Department of Engineering under the supervision of Professor Peter Guthrie. Carron will be researching engineering and supporting business practice with the aim of re-engineering sustainability as it applies to infrastructure. This draws on her work in complexity and operational innovation and has the following objectives:



UNIVERSITY OF
CAMBRIDGE

- Better use of existing and new infrastructure;
- Improved productivity, adaptive capacity, and resilience through sustainability performance and efficacy; and
- Effecting and communicating a step change in sustainability practice and knowledge.

The decision to embark on research is an embedded part of Anguillid's own business strategy and aimed at delivering value to our clients over the longer term. We are fortunate in that our active clients and collaborators are unanimously behind this initiative. So will we be wrapping up Anguillid? Absolutely not. Will Carron be permanently based in the UK? No. This will entail three blocks off shore a year and Carron will be contactable during those times. In fact we will be looking for projects from within New Zealand and our consultancy practice to use as active case studies in the research. Because of the leading nature of this research, this will likely involve iterative and 'active learning' style projects that consider innovative or new initiatives as they develop. So if we can add value to your project or organisation and / or you are keen to have this contribute to this research, then Carron would be delighted to hear from you. If there is anything you would like to discuss with us, including how we can continue to support you during this time, please do not hesitate to call Carron. We would however like to thank everyone for not only their unconditional support but their complete enthusiasm for not only the research topic itself, but for this endeavour as a whole. Kia ora.

Journey highlights

- **Mentoring:** Our student mentees are both thriving at university. May is now specialising in geotechnical engineering and is into her final year. Morgan is at the start of her journey in a conjoint in engineering and maths.
- **Enhancing:** After finally completing the interior of the office, we have turned our attention to the outside and have been busy planting to help the local bird life (pictured – yes that is four kereru), bees, stormwater, and our footprint.
- **Sustaining:** Anguillid continues to sustain its progress – but we have run out of room this issue to update you. Head to our website: www.anguillid.co.nz for other updates on our journey.
- **Learning:** Te reo – ka pai!



Thought leadership – we think!

In these tougher economic times, there is added pressure to do more with existing infrastructure and Anguillid has been privileged to have been invited to work on a number of first principle thinking exercises by Auckland Transport. We love these projects as they give Anguillid the opportunity to collaborate, and to think creatively about a problem and to do so in a way that looks out the other side. This is a real number 8 wire, New Zealand 'thing' – as Lord Rutherford once observed "we haven't got the money, so we've got to think!" (he also said "if you need statistics, you did the wrong experiment" – something I shall probably have recourse to draw on in the next three years!).

The projects range from an integrated public transport facilities plan, which advances the internationally recognised strategies developed for the Albany Lakes Precinct, through to a number of emergent asset management strategies that are under continued development. These draw not on any specialist skills in a given technical area, but our critical thinking and ability to take a fresh look at well-established and embedded practice.



We value your feedback and any suggestions you may have. Please check out our website using either the QR code below or via www.anguillid.co.nz. As always, if Anguillid can assist you then please contact Carron at carron.blom@anguillid.co.nz or 027 2648 455.

If you do not wish to continue receiving Anguilliform, then we will be sad to see you go, but please email us with 'unsubscribe' in the subject line.

Kind regards from the team at

Anguillid Consulting Engineers and Scientists Ltd

PO Box 34408 Birkenhead AUCKLAND 0746

