

# Report on a Pilot Biodiversity Continuing Education Course in Nelson

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## **Background:**

As part of the Envirolink project submitted by Nelson City Council, Drs. Mark Hostetler and Colin Meurk developed a biodiversity continuing education course and pilot tested it to a select group of developers, planners, and environmental consultants (2 July 2008). The primary focus of the Envirolink project was to develop and to offer a continuing education course (for built environment professionals) on preserving and restoring biodiversity in urban and rural properties. The rationale for this project was to upskill built environment professionals, filling the gap between policy and implementation. Many design and management practices could be implemented by built environment professionals, but if they are not engaged or do not understand which techniques to use, such practices may not be realised. In particular, many significant management issues appear during the construction and post-construction phases of a project and built environment professionals need to be aware of these and provide solutions to maintaining a functional, biodiverse community after residents move into a community. A long-term goal is to produce a course package (which includes a 'take home' resource manual and power point presentations) so that it could be offered in various cities and regions throughout New Zealand.

The following is a short report about the project, including feedback from participants taking the pilot course and future directions for the course.

## **Course Feedback:**

Approximately 30 people attended the course and the session lasted from 9:00 am to 2:30 pm. Overall, evaluations were pretty high (4s and 5s) - people liked the presentation and were appreciative of the course resource manual. People thought the course was a great way to get key players involved and could be used as an opportunity to get discussions going, leading to the next step of incorporating biodiversity features in subdivisions. We went through the written and verbal comments and will attempt to summarise them and give some feedback of our own:

- Several participants wanted even more good and bad NZ examples of developments that addressed biodiversity. Many remarked that NZ examples (especially the good) are lacking. (Note: We think perhaps in some situations, facilitators may want to extend the course to go on a field trip to highlight a local example that has some unique biodiversity features. This could be done in lieu of the afternoon exercise or could be done the following morning.)

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- There was a mix of comments suggesting that the course content was about right and some thought it was a bit too “low.” (Note: We believe this is a natural result of a mix of participants – some were up to speed and others were not. The course was designed for the “average” person. Perhaps a more upfront survey of potential participants could tailor the course but in most situations, will get a mix of people).
- Participants that expressed the above view also expressed the notion that they really wanted more information about how to get unique designs and practices through the permitting process. Nelson staff did provide a number of local guides and resources to aid developers to incorporate biodiversity measures, but people seemed to want more regarding actual permitting. Several mentioned barriers do exist in Nelson between city planners and regulators (e.g., engineers) and ultimately developers. There was a perception (even if not true?) that most regulators go by the rules and any deviation, even if it fits in with a biodiversity strategy, will not go through easily because regulators stick to the rules. Several expressed the opinion that regulators are “risk adverse” and will not permit something new. For example, stormwater park cannot have a dual purpose of retaining stormwater and a park amenity (thus cannot be counted as a reserve contribution). Swales and raingardens – even if built – still need to have a back up of pipes. In Tasman district, we saw a planned community that wanted to have “no cars” but could not do this because rules stated that all households must have parking for two cars. Several expressed that if they wanted to conserve open space or implement an environmental education programme, how could they do this under current regulations and still make money? NZ examples would be useful here as many participants expressed the idea if they are to convince developers of new ways to do things, need local examples. (Note: This is almost a “chicken and an egg thing.” One possible solution to this is after the power point presentation, if enough people in the audience were consultants and developers eager to move forward, a facilitated discussion could happen were people identified barriers, solutions, and even list local practical examples).
- Participants valued the afternoon exercise of designing a biodiverse subdivision. People thought it was a good way to network and to put into practice what they learned. However, several thought not enough time was allotted. (Note: We did run out of time for discussion at the end – We would recommend leaving at least 3 hours for the exercise and discussion. This would make it a full day course).
- Some expressed the view to have more on “economic reasons” and financial solutions for developers to become engaged. This information was in the course manual but not covered in the presentation. (Note: A balancing act – some thought we should have spent time on providing evidence for why people should be concerned with biodiversity in the first place but others, those already motivated, would want to get to the ‘how to’ part). Many thought that most developers would not implement biodiversity practices. Several expressed the notion of utilising incentive-based policies (as mentioned in the course – such as fast-tracking, permit breaks, etc.). (Note: Depending on the audience, one could have a discussion in the afternoon on which types of incentives would be meaningful to local developers).
- In both written and verbal comments, people expressed the importance of engaging the residents of biodiverse subdivisions (phase III: post-construction). It seemed this section of the manual and presentation sparked the most interest. (Note: If the Marsden Park development implements an education programme, could serve as a local example).

## **Future directions for the biodiversity course:**

The following stems from a variety of verbal discussions and written comments with participants of the course and Nelson City Council staff. The idea is what is the next step? How could the course be offered in such a way as to attract built environment professionals, even those not interested in biodiversity? The ultimate goal is to offer the course in various New Zealand cities and regional districts; in particular, how can the course be offered to a wider audience in the Tasman/Nelson region?

- First, stemming from the discussions during the course, many people were concerned about how one gets through the permitting process and “red tape” to get a unique design consented. This goes back to problem of submitting a unique design (e.g., low impact stormwater designs that incorporated open space features for water treatment instead of pipes). For Nelson, we recommend that an additional ½ day workshop is conducted where city planners and regulators and interested built environment professionals (especially those that came to the course) discuss and identify the permitting barriers and solutions to implementing biodiversity designs and management practices. This may help alleviate concerns and help to insure that city regulators, city planners, and developers are all on the same page and know the opportunities and limitations. As an incentive, perhaps offer to book a time at some later date (sort of a pre-application meeting) with each participant to discuss individual concerns and/or specific issues regarding a proposed development site.

Once this is completed, perhaps Nelson City Council could offer the course again to a wider audience within Nelson (and Tasman?). The morning session would be the power point presentation covering background about biodiversity and how to implement design and management practices. The afternoon session could either be the expanded group exercise, a field trip to a unique development and discussion with a developer (e.g., Marsden Park), or a pointed discussion by city staff on how one works through the permitting process when a resource consent includes any unique features discussed in the morning session. Funds to pay for a presenter and the course could come from internal budget or from a small grant from Envirolink. It was even suggested that a small fee (e.g., \$25) be paid by participants to help with registration/food costs.

Conversations with Martin Workman suggested that the course could be offered in the Tasman district council. Key people to contact to get the ball rolling is Dugald Ley (engineer for the Tasman District Council – [dugald.ley@tdc.govt.nz](mailto:dugald.ley@tdc.govt.nz)) and Robyn Simpson (urban designer – [robinsimpsondesign@xtra.co.nz](mailto:robinsimpsondesign@xtra.co.nz)).

For other cities and regions, such as Tasman, there is going to be varying degrees of motivation to incorporate biodiversity into a development. This degree of motivation includes both planning staff and local built environment professionals. For example, some regions may have well developed biodiversity strategies with motivated staff whereas other regions are just beginning to develop interest.

However, even for regions with a well-developed biodiversity strategy and those that do not, engaging local built environment professionals and making sure permitting barriers are identified and removed will still be issues. However, for areas trying to “spark interest” in biodiversity, one may want to first drum up interest. Thus, we offer some thoughts about offering the course for regions that want to drum up interest and those regions that have a more motivated private and public sector. We recommend the below steps to raise the profile of incorporating biodiversity into community designs and practices (although these steps should be tweaked for local conditions):

- Sparking interest within a region:

For new subdivision development, a full day course could be offered to key stakeholders in the public and private sector. This would include city staff and various built environment professionals, especially major developers in the area. This really would be a course to not only expose people to the concept of biodiversity and how to incorporate appropriate actions in the design, construction, and post-construction phases, but it would cover the ecological, social, and economic reasons to do so. Thus, a full day would start in the morning with the power point presentations, including some time spent on the benefits for conserving and restoring biodiversity. The afternoon could consist of the group exercise to design a biodiverse subdivision and perhaps a presentation about local developments that have incorporated biodiversity into their plans. In some cases, if time permits, perhaps a field trip to local examples.

After this initial 1-day presentation, follow up with a select group of stakeholders to identify barriers and solutions to obtaining a resource consent implementing the identified biodiversity practices mentioned for the three phases of development (see the 4 steps below for motivated regions). Once these are identified, city planners map out a resource consent strategy to encourage and support biodiversity efforts. Then, roll out a marketing plan to get the word out and offer brief training workshops to train people on how to navigate the resource consent process when trying to implement a subdivision design that incorporates biodiversity.

In addition, one could also present this course to homeowners and landowners. One should not play down the importance of general public support and understanding. This course could help “retro-fit” existing urban communities and rural land. Small section homeowners and large lot landowners could restore portions of their property and have a significant impact on local biodiversity. The course would also be presented as above but perhaps altered a bit to reflect the target audience of small and large section landowners that are not planning to subdivide. Most of the practices mentioned in the course are applicable – for example, the patch size and shape of natural vegetation that is conserved during the design phase of a subdivision still applies to small and large lot landowners as they decide perhaps where to restore portions of their property.

Already motivated regions:

- 1). Offer the biodiversity course to a select group of major stakeholders in the area. This group would include key private and public sector engineers and planners, councillors, developers/landowners, and other private sector built environment professionals such as landscape architects. It is very important that key regulators come to this workshop. A mixture of motivated and not so motivated stakeholders is also important. This could be a 1 day course/workshop or 1 ½ day course/workshop. For the one day workshop, the morning session would go over basic biodiversity principles and issues during the design, construction, and post-construction phases of a development. The afternoon session would be a facilitated discussion of the barriers and solutions to obtaining a resource consent when implementing the identified biodiversity practices mentioned for the three phases of development. For the 1 ½ day course/workshop, the afternoon session could be some field trips to unique sites that have implemented some practices or instead of a field trip, the designing a biodiverse subdivision exercise could be conducted to promote interaction among the key stakeholders. The following morning, one would conduct a facilitated discussion of the barriers and solutions to obtaining a resource consent. In all cases, as what Nelson City Council staff did, a summary of local guides, policies, and resources concerning biodiversity should be organised and made available to participants. As incentive to attract participants, offer to arrange a future booking time with each participant to discuss individual concerns and/or specific issues regarding a proposed development site.
- 2). After this course/workshop, have key planning staff and regulators get together and based on what was suggested, come up with a plan to encourage and support biodiversity designs and management practices for biodiversity. In other words, make sure which practices regulators will accept when unique plans are submitted.
- 3). Once the above is accomplished, create a clear policy document that identifies particular biodiversity practices that will be supported and perhaps encouraged (through incentives) during a resource consent.
- 4). Then, roll out a marketing plan to get the word out and offer brief training workshops to train people on how to navigate the resource consent process when trying to implement a subdivision design that incorporates biodiversity.

Another suggestion to attract people to the biodiversity course, especially built environment professionals, was to have the course adopted by NZ professional organizations (e.g., RMLA association, National Planning Institute, and surveyors association) as a course where professionals could obtain required continuing education credits.

We plan to place the powerpoint presentations, the resource manual, facilitator notes, and this report on a cd to give to Nelson City staff. We have also identified some interested facilitators that could help run this course when a city or region wants to offer it to stakeholders. In particular, the cd will be given to Rhys Taylor (National Coordinator, Sustainable Living Programme, email: [anneandrhy@clear.net.nz](mailto:anneandrhy@clear.net.nz)) and Clare Feeney (Director of Environmental Communications, Environment and Business Group, email: [clare@ebg.pl.net](mailto:clare@ebg.pl.net)). The idea would be this: local city councils and districts would handle the advertising and logistics to run a course

and a hired facilitator would help present the course, probably in conjunction with Dr. Colin Meurk who is familiar with the presentation of this course. Future continuing education courses could be coordinated through Landcare's LIUDD programme ([www.landcareresearch.co.nz/research/built/liudd](http://www.landcareresearch.co.nz/research/built/liudd), contact Michael Krausse, email: [kraussem@landcareresearch.co.nz](mailto:kraussem@landcareresearch.co.nz)) or could be handled independently with each council or local group and hired facilitators. Details on how exactly this would work are unknown at this time.

Mark has had some contact with several councils that are interested in offering this biodiversity course. Key contacts to get the ball rolling are:

### **Christchurch City Council**

Senior Planning Engineer, Ken Couling ([ken.couling@ccc.govt.nz](mailto:ken.couling@ccc.govt.nz))

Botanist, Trevor Partridge, ([Trevor.Partridge@ccc.govt.nz](mailto:Trevor.Partridge@ccc.govt.nz))

Policy Analyst (Natural Resources), Melissa Renganathan, ([Melissa.Renganathan@ccc.govt.nz](mailto:Melissa.Renganathan@ccc.govt.nz))

### **Greater Wellington Regional Council:**

Biodiversity and Wetlands Policy Advisor, Environmental Management Division, Tim Park, ([Tim.Park@gw.govt.nz](mailto:Tim.Park@gw.govt.nz))

Environmental Educator, Richard Romijn, ([Richard.Romijn@gw.govt.nz](mailto:Richard.Romijn@gw.govt.nz))

### **Southland District Council**

Manager-Resource Management, Bruce Halligan, ([bruce.halligan@southlanddc.govt.nz](mailto:bruce.halligan@southlanddc.govt.nz))

### **Rodney District Council**

Ecology Advisor - Resource Management, Rue Statham, ([rue.statham@rodney.govt.nz](mailto:rue.statham@rodney.govt.nz))

Policy Advisor (Natural & Coastal Environment), Craig Pratt, ([craig.pratt@rodney.govt.nz](mailto:craig.pratt@rodney.govt.nz))

### **Waitakere City Council**

Senior Public Affairs Adviser, Liz Mahoney, ([Liz.Mahoney@waitakere.govt.nz](mailto:Liz.Mahoney@waitakere.govt.nz))

Senior Planner, Bronwyn Allerby, ([Bronwyn.Allerby@waitakere.govt.nz](mailto:Bronwyn.Allerby@waitakere.govt.nz))

### **Waikato Regional Council**

Terrestrial Ecologist, Yanbin Deng, ([Yanbin.Deng@ew.govt.nz](mailto:Yanbin.Deng@ew.govt.nz))

Environment Waikato Resource Information Group Manager, Tony Petch, (contact assistant Imelda, [imelda.devaney@ew.govt.nz](mailto:imelda.devaney@ew.govt.nz))

### **Tasman District Council**

Development Engineer, Dugald Ley, ([dugald.ley@tdc.govt.nz](mailto:dugald.ley@tdc.govt.nz))

Urban Designer, Robyn Simpson ([robinsimpsondesign@xtra.co.nz](mailto:robinsimpsondesign@xtra.co.nz))

### **Marsden Park and implementing an environmental education programme:**

We spent Thursday morning with developer/landowner John McLaughlin ([john@marsden-park.co.nz](mailto:john@marsden-park.co.nz)) and planner Tony Quickfall ([tony@quickfall.co.nz](mailto:tony@quickfall.co.nz)), exploring the Marsden Park

development. After taking a field trip to the site, we went back to Nelson and had a discussion with John, Tony, a surveyor Paul Newton ([paul@newtonsurvey.co.nz](mailto:paul@newtonsurvey.co.nz)), and Nelson City staff representative Anna Crosbie ([anna.crosbie@ncc.govt.nz](mailto:anna.crosbie@ncc.govt.nz)). After reviewing the plans, both Colin and I thought the design of the community could be a good example of conserving and restoring biodiversity when subdividing a large section of land. The 100 ha site had open space that identified remnant vegetation and plans to restore areas with native plantings. John was very interested in post-construction issues and wanted to implement an environmental education programme in the community to engage homeowners and promote buy-in to the goals for the community.

We talked about creating dynamic signs and Web site that would address natural resource conservation within the community (similar to the Florida programme at the Town of Harmony – see <http://www.wec.ufl.edu/extension/gc/harmony>). In addition to this, we discussed the option of the developer starting a conservation club within Marsden Park to help residents look after the long-term management of open space, homes, gardens, and neighbourhoods. Nelson City Council experts, DOC, and other interested groups and organizations could offer occasional workshops for residents in Marsden Park. Mark Hostetler offered to use the Town of Harmony educational framework (that he and his graduate students developed), which includes signage and Web site design – this educational programme has been tested in Florida and shown to work. Mark has html files (web site) and Adobe Photoshop files (sign panels) that could be used and adapted to a New Zealand context. The content, photos, and illustrations would have to be made specific to Nelson and to Marsden Park. John thought it would add value to his community and Nelson City staff thought it could be a good demonstration project to promote this concept of engaging residents.

Talked turned to how this could happen for Marsden Park. John was interested in perhaps supplying funds for the dynamic signs and a place to house the web site, but expressed reservation about funding a position for somebody to develop the content and graphic layout for the signs and the web site. We discussed ways to find funding to hire somebody to create the content and layout for the signs and web site. Based on the Town of Harmony experience, Mark estimated that it would take a minimum of 6 months (full time) or 1 year (part time) for somebody with environmental education/interpretation skills to develop the content and layout of the signs and web site. Tony suggested writing a grant to hire an environmental educator to develop the programme – this could be a three-way partnership among Landcare Research, Nelson City Council, and the Marsden Park development team. A grant could be submitted to MFE's Sustainable Management Fund or another Envirolink grant. Who would actually develop the web site and sign content? A potential environmental professional to do this is Rhys Taylor (National Coordinator, Sustainable Living Programme; email: [anneandrhys@clear.net.nz](mailto:anneandrhys@clear.net.nz)), who expressed interest in contract work to develop the programme and information from the Sustainable Homes programme could be used. The grant would primarily pay salary for this person and the developer could supply matching funds to pay for the signs, graphic panels, and hosting web site. The grant would highlight the possibility of this residential community to serve as a demonstration project; further, the signage would benefit people living outside Marsden Park as several planned walking and biking trails and public commercial areas are accessible to local residents. Educational signs could be installed in these public areas.

Who could set up a research programme to measure the impact? Kathryn Scott (Social Researcher, Landcare Research LIUDD programme, email: ScottKM@landcareresearch.co.nz), can help develop the research programme to measure any impacts that the programme could have. Mark Hostetler (because he has conducted such research in the U.S.) could also help with this research. However, need to find funding to conduct the study.

In addition, as expressed by Martin Workman, Nelson City Council may be able to use internal Nelson City staff or hire a consultant to develop the educational programme. Mark Hostetler can provide the framework (e.g., web site and photoshop files) from the Town of Harmony educational programme to help construct the Marsden Park educational programme.

The timeframe for the creation of this education programme is as follows. It is estimated that the first homeowners would move into Marsden Park March 2010. Thus, the project should get started by March 2009 in order to have the environmental education programme up and running by the time the first homeowners move in. Ideas for the upkeep of the signs and web site (over the short term) would initially be the developer, perhaps in conjunction with Nelson City Council. Over the long term, residents within the community, again in conjunction with Nelson City Council, could also help with upkeep and maintenance of the signs and web site through a conservation club established within Marsden Park.