Landcare Research Freshwater Symposium Talk – Science Strategies and monitoring networks

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Science strategies
The Greater Wellington Regional Council's monitoring programmes and science are needed to inform a number of questions, sometimes competing, often with limited resources.

We need to *inform others* so they can manage the natural resources effectively – 'others' may include:

- Our stakeholders – internal (our Council) and external
- The public
- Tangata whenua
- Communities of interest

We need to *inform policy* for:

- Policy development
- Robust decision making
- Monitoring plan effectiveness
- Monitoring outcomes

And for many councils now, including our own – to *inform community collaborative processes*.

1. Monitoring needs to be robust so the science can be trusted.
2. It needs to be expressed and reported appropriately – so that limitations and uncertainty are transparent and understood.
3. It needs to be communicated to a number of different stakeholders and communities with different levels of understanding and different uses for that information.

With our science being used to underpin and inform so many important decisions for our region, as a Council we felt that we needed to be proactive about this, and so decided to develop science and monitoring strategies for the way we will operate around science, and engage and communicate with our stakeholders and science experts.

An important need highlighted in this strategy is forming engagement processes with internal and external stakeholders and communities; so that we understand the questions that our monitoring programmes are required to answer. We are in the process of setting up internal science steering groups to help us outline what these questions are and how we will prioritise the science information we need.

We have also set up a Science Advisory Group – consisting of external experts in a range of science disciplines from a number of research providers, i.e. from Crown Research Institutes and universities.

Good collaboration with external providers can help us to:

- Prioritise research
- Gain expertise on our science programmes so these are robust and use good-practice protocols
- Channel more relevant research for our region; and
- Help us bring external expertise into the whaitua process – as that process will be information hungry, and we're going to need help to provide that information.

Building relationships with others is vitally important to ensure we have successful science programmes and outcomes for our region.

Monitoring networks

State of the environment (SoE) programmes are designed to monitor state and trend in *regional* resources to meet the requirements of the Resource Management Act. But council SoE monitoring networks are being used more and more to answer many science questions that they weren't designed to answer, and they can do this to a lesser or greater degree:

- For example, for its National Environmental Monitoring and Reporting (NEMaR) project the Ministry for the Environment wanted to use council SoE data to look at national freshwater state and trends, and impacts of land use. While SoE data are an amazing resource, those monitoring networks were designed for the purposes of regional objectives, and so the network doesn't meet the national objectives – there is a whole work stream around the network required for this.
- And now, at a regional level, our own SoE network at Greater Wellington Regional Council doesn't meet all of the objectives it is being used for.

So, we have decided to review all our monitoring networks and will start by asking what our objectives are. We think this may mean we need a number of networks to answer different questions. These may be for national or regional purposes, to monitor state and trends, for policy, for the whaitua, to monitor plan effectiveness, etc.

- Some sites will overlap as they may meet a number of objectives, but it will certainly mean the creation of new sites – at a cost, and perhaps retiring some sites – at the cost of loss of long term data they have been collecting.
- It will involve looking at the best design for different purposes – and we'll certainly require expert advice around that. On top of that we have to think about accessibility, flow recorded, cost and what do we do with our long-term-data sites?
- Networks will need to be developed that will satisfy all these needs with limitations expressed appropriately.

Our role at Greater Wellington Regional Council is to provide robust designs that meet the uncertainty levels required to provide good science to answer the questions posed by our clients.