EVALUATION OF ENVIROLINK:
An environmental management grants scheme for regional councils

Prepared for the Ministry of Research, Science & Technology

by

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We gratefully acknowledge the contributions of the people who were interviewed for this evaluation. They gave generously of their time and advice. Their prompt and enthusiastic response to emails and phone calls was a testimony to the strength of their commitment to the success of the Envirolink Scheme.

EXECUTIVE SUMMARY

1. This report presents the findings of an independent end-of-trial evaluation of the Envirolink Scheme. MoRST contracted Taylor Baines & Associates to carry out the study which covers the first 16 months trial period[1] of the scheme from 1 December 2005 to 1 April 2006.

2. The Envirolink Scheme was set up in 2005 to promote the dual outcomes of increasing the return on investment in environmental research, science and technology (RS&T) by facilitating its uptake by regional councils, and ensuring that environmental management by regional councils is fully informed by currently available RS&T.

3. Envirolink is a regional council driven funding scheme, with funds administered by the Foundation for Research, Science and Technology (FRST). Investment funding of $1.6 million (excluding GST) per annum was made available.

4. The Envirolink scheme funds research organisations (Crown Research Institutes, universities and some not-for-profit research associations) to provide Regional Councils with advice and support for research on identified environmental topics and projects.

5. Three types of funding are available - small advice grants, medium advice grants, and funding for tool development. Nine Regional Councils and Unitary Authorities were eligible to apply for Envirolink advice grants during the trial period. Sixteen research organizations were eligible to participate in the Scheme.

6. This evaluation focused on the four Scheme objectives, namely to:
(1) increase the engagement of regional councils with the environmental RS&T sector;
(2) improve science input to the environmental management activities of regional councils;
(3) contribute to greater collective engagement between councils and the science system generally; and
(4) put in place an appropriate process to meet the above objectives (1)-(3).

[1] The Ministerial Notice states that "The Scheme commences operation on 1 November 2005 in trial form. Its continuation and mode of operation will be evaluated in an ongoing manner for the duration of the trial (two years) by the Ministry. The Scheme will continue beyond two years, but its method of operation will be reviewed at this time, with a view to updating this Ministerial Notice by 30 November 2007".

Findings of this evaluation

7. The small and medium advice grant aspects of the Scheme appear to be functioning well, and this is a consistent finding across all sources of data. The Tools process has not functioned well. Suggestions have been made that should improve this process for future rounds.

8. The Governance Committee serves a useful and effective function in administering the Scheme and enabling collaboration between participating organisations and the Envirolink Coordinator's role appears to function extremely well, to the evident satisfaction of all parties involved.

9. The Scheme has increased the engagement of regional councils with the environmental RS&T sector. It has also improved the science input to the environmental management activities of regional councils and has contributed to greater collective engagement between councils and the science system.

10. Taken together the evidence suggests some substantial positive achievements for the existing group of participants during the first 16 months of the trial period. This is a significant return on the Government's investment in the Scheme and participants expect such returns to increase in the future.

Recommendations

11. That there be an internal review process (i.e. involving the council and science provider teams) initiated in cases where completed advice grant evaluations result in scores of 3 or less, and reporting of such reviews to the Governance Committee as a means of providing some external accountability.

12. That consideration be given to increasing the grant funding limits for both small and medium advice grants with a corresponding increase in overall Scheme funding to avoid intensified competition which could disadvantage the smaller participating councils.

13. That the inclusion of natural hazard-related science as a legitimate and explicit focus of activity be covered by the Scheme. This would allow more accurate topic coding and monitoring of the activities than occurs at the present time.

14. That the Scheme not be open to the other larger regional councils as this would be contrary to the Scheme's underlying principle - to address small councils' needs for effective engagement with the environmental science system.

15. That clearer protocols be established for notifying Foundation for Research, Science and Technology (FRST) funding managers ahead of time whenever delays are a prospect.

16. That the Tool application form should be streamlined, the relevance section removed, and the focus shifted to a work plan and milestones; it should continue to be peer reviewed, and have a strict time frame for processing.

EXPANDED SUMMARY

Framework and sources of information for this evaluation

17. This evaluation draws on three sources of information: (1) a review previously carried out by FRST, (2) scheme monitoring data collated by MoRST, and (3) telephone interviews conducted with all nine participating councils and five of the participating science providers.

Findings of this evaluation

Components of the Envirolink Scheme

18. The small and medium advice grant aspects of the Scheme appear to be functioning well, and this is a consistent finding across all sources of data.

19. While this is a general finding which applies most of the time, it is also evident that there are a few occasions when science advice projects do not meet council or science provider expectations. The data suggest that this is usually associated with issues such as exceptional delays in completion, inappropriate expectations and a lack of clarity by council staff, or poor communication of knowledge by science providers.

20. The Tools process has not functioned well. Again, this is a consistent finding across all sources of data. It has been slow to progress so far with few tools projects well advanced at this stage. Nevertheless, suggestions have been made that should improve this process for future rounds.

21. The Governance Committee serves a useful and effective function in administering the Scheme and enabling collaboration between participating organisations.

22. The Envirolink Coordinator's role appears to function extremely well, to the evident satisfaction of all parties involved.

Achieving the intended objectives of the Scheme

23. The extent to which the Scheme has increased the engagement of regional councils with the environmental RS&T sector is demonstrated by -

    - *the number of advice grants sought by regional councils*: all participating councils have made at least eight advice grant requests, and some have made many more; most participating councils (7 out of 9) have received advice grant support from a broad cross section of science providers through the Scheme;

    - *the number and quality of relationships between participating councils and science providers*: all responding councils reported improved relationships with science providers; three out of five science providers reported improved relationships with participating regional councils;

    - *the involvement of council staff in science training*: while no councils reported increases in the number of staff taking an active role in environmental science work,

seven out of nine councils reported that staff have undertaken some form of science or technical training as a result of the Scheme.

24. The extent to which the Scheme has improved the science input to the environmental management activities of regional councils is demonstrated by -

- *regional council satisfaction with completed advice grants*: 30% of all advice grant outputs were rated 'most satisfied' by regional councils; another 50% of all advice grant outputs were rated with either 4s or 5s (on a 5-point scale); only one completed advice grant recorded an average score (across all elements) below 3.

- *science provider satisfaction with completed advice grants*: science providers reported very high levels of endorsement of the advice requests. The advice request fitted well with area of science expertise, and was well met for 95% of the requests. Ninety-nine percent of the requests were realistic.

- *specific benefits to councils*: for most types of benefit, most councils gave the Scheme a mid-range score (medium effectiveness). The variation either side of medium is evenly balanced - 9 scores of 'medium-high' and 'high' contrasting with nine scores of 'low' or 'none';

- *influence on the development of councils' environmental science strategies*: out of six councils which either have adopted environmental science strategies or are in the process of developing strategies, three indicated that the Scheme had positively influenced these activities.

25. The extent to which the Scheme has contributed to greater collective engagement between councils and the science system generally is demonstrated by -

- *requests or interest by other councils*: science providers indicated that in 46% of cases completed advice grants had attracted enquiries from other councils;

- *council input to science provider environmental science strategies or other research programmes*: four councils responded that they have been more active in influencing science providers' environmental science strategies, which was corroborated by the science providers;

- *new staff relationships between councils*: for five out of nine councils, staff have developed new relationships with staff in other councils as a result of the Scheme.

26. Taken together and in absolute terms, the evidence suggests some substantial positive achievements for the existing group of participants during the first 16 months of the trial period. This is a significant return on the Government's investment in the Scheme and participants expect such returns to increase in future.

27. With the exception of the process for Tools development, the processes for administering the Scheme are effective.

28. Nevertheless, a range of issues have been raised by participants during this evaluation in respect of administrative processes and the initial scope of the Scheme.

Recommendations

29. With respect to the exceptional situations referred to previously, these should be learnt from, and this learning is not necessarily happening at present. **We recommend** an internal review process (i.e. involving the council and science provider teams involved) be initiated in cases where completed advice grant evaluations result in scores of 3 or less, and reporting of such reviews to the Governance Committee as a means of providing some external accountability.

30. In light of experience of the grant funding limits and the universal expectation of enhanced benefits to be gained from increasing these grant limits and the flexibility of their implementation, **we recommend** consideration be given to increasing the grant funding limits for both small and medium advice grants (to be determined in discussions between FRST, the Governance Committee and the Envirolink Coordinator), with a corresponding increase in overall Scheme funding to avoid intensified competition which could disadvantage the smaller participating councils.

31. In light of the current high level of interest amongst regional councils across the country in natural hazards policy and strategy, and given that an important thrust of the Envirolink Scheme is to introduce a degree of end-user influence for a specific set of end users, **we recommend** formalising what is already happening in a de facto manner - the inclusion of natural hazard-related science as a legitimate and explicit focus of activity covered by the Scheme. This would allow more accurate topic coding and monitoring of the activities than occurs at the present time.

32. **We recommend** against opening up the Scheme to the other larger regional councils as this would be contrary to the Scheme's underlying principle - to address small councils' needs for effective engagement with the environmental science system.

33. Since delays in completing advice grants are more of an administrative issue for FRST, rather than a factor which influences council satisfaction, **we recommend** clearer protocols be established for notifying FRST funding managers ahead of time whenever delays are a prospect.

34. **We recommend** FRST business managers work more closely with research providers to develop rigorous milestones for Tools proposals.

35. On the advice of the Envirolink Coordinator concerning the Tools process, **we recommend** that the application form should be streamlined, the relevance section removed, and the focus shifted to a work plan and milestones; it should continue to be peer reviewed, and have a strict time frame for processing.

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1 INTRODUCTION

1.1 Description of the Envirolink Scheme

The Envirolink Scheme[2] was set up to promote the dual outcomes of increasing the return on investment in environmental RS&T by facilitating its uptake by regional councils, and ensuring that environmental management by regional councils is fully informed by currently available RS&T. The need for Envirolink was identified in MoRST's evaluation of the Environment Research Output Class published in 2004. Subsequently, a design team comprising MoRST, FRST, Ministry for Environment (MfE) and regional councils drew up the aims and objectives of the scheme. These aims and objectives guided this evaluation. Future evaluations will have the advantage of this evaluation for providing firm benchmarks for comparison.

The Envirolink scheme funds research organisations (Crown Research Institutes, universities and some not-for-profit research associations) to provide Regional Councils with advice and support for research on identified environmental topics and projects.

The scheme aims to support Regional Councils in two areas of environmental management: adapting management tools to local needs, and translating environmental science knowledge into practical advice.

Three types of funding are available - small advice grants, medium advice grants, and funding for tool development[3]

Nine regional councils and Unitary Authorities are eligible to apply for Envirolink advice grants -

Environment Southland
Gisborne District Council
Hawkes Bay Regional Council
Horizons Regional Council
Malborough District Council
Nelson City Council
Northland Regional Council
Tasman District Council
West Coast Regional Council

[2] http://www.Envirolink.govt.nz

[3] See Appendix 1 for explanation.

Sixteen research organisations are involved with the scheme -

AgResearch
Cawthron Institute
Crop & Food Research
ESR
GNS
HortResearch
Landcare Research
Lincoln University
Massey University
NIWA
SCION
University of Auckland
University of Canterbury
University of Otago
University of Waikato
Victoria University

The Envirolink Scheme also has a Governance Committee comprising representatives from six regional councils[4] and MoRST.

The Scheme commenced on 1 December 2005 in trial form, and investment funding of $1.6 million (excluding GST) per annum has been available.

1.2 Brief for this evaluation

Taylor Baines & Associates has been engaged to carry out an independent evaluation of the Envirolink Scheme during its first two-year trial period, covering experience and data records from 1 December 2005 to 1 April 2007.

The brief for this evaluation was to provide a detailed evaluation report for the Envirolink Scheme based on the Performance Measurement Framework developed by MoRST. This evaluation should draw on information from three sources:

(1) an internal review of Envirolink carried out by FRST during the trial period;
(2) an analysis by MoRST of monitoring data collected during the trial period, including council and science provider feedback; and
(3) supplementary interview responses collected via an 'end-of-trial' survey

[4] Two are participating councils - Hawkes Bay Regional Council and Environment Southland; four are non-participating councils - Auckland, Waikato, Taranaki and Canterbury.

2 THE EVALUATION FRAMEWORK

2.1 The initial Evaluation Framework developed by MoRST

Prior to the scheme being implemented, MoRST developed an Envirolink Performance Measurement Framework[5] which focused on the Scheme's objectives, namely -

> (1) to increase the engagement of regional councils with the environmental RS&T sector;
> (2) to improve science input to the environmental management activities of regional councils;
> (3) to contribute to greater collective engagement between councils and the science system generally; and
> (4) to put in place an appropriate process to meet the above objectives (1)-(3).

The Performance Measurement Framework involved, for each of the four objectives, a combination of on-going monitoring of indicator data during the trial period and 'end-of-trial' evaluation data to be collected by Taylor Baines & Associates

2.2 Review of this Framework prior to this 'end of trial' evaluation

On commencing this evaluation contract, it became apparent that the original Envirolink Performance Measurement Framework required modifications. While the specification of Outcomes and Objectives has not changed, the monitoring data collected so far does not cover all data categories envisaged at the outset.

The data categories collected during the end of trial interviews were re-assessed in light of what monitoring data have actually been collected so far, and the practicalities of collecting data via interviews with participating councils and science providers. These practicalities centred upon concerns for respondent burden for the coordinators involved, and addressing situations where some council coordinators had to take into account up to 30 or 40 separate grants during the trial period, while some science provider coordinators had to take into account up to 60 or 80 separate grants during the trial period.

The questionnaires to be used in telephone interviews with coordinators (separate questionnaires for council and science provider coordinators) were developed collaboratively between MoRST and Taylor Baines & Associates, reviewed by Bill Dyck, and subsequently piloted on two Envirolink coordinators.

Bill Dyck alerted all the relevant Envirolink coordinators to their role in this evaluation process, and each was sent a copy of the questionnaire several days in advance of the interview, to allow them time to make considered responses. As a result, some were able to consult with other staff members in their organisations.

[5] See Appendix 2

2.3 Structure of this report

The remainder of this report is structured as follows -

Section 3: a summary of the FRST consultation with councils on Envirolink

Section 4: a summary of the MoRST analysis of monitoring data

Section 5: analysis of interview materials resulting from interviews carried out by Taylor Baines & Associates

Section 6: discussion of combined results and conclusions of this evaluation.

3 SUMMARY OF FRST CONSULTATION WITH COUNCILS ON ENVIROLINK

Taylor Baines & Associates was provided with the document entitled "Envirolink Feedback on Consultation discussions" prepared by FRST. This section summarises relevant findings from that report, adopting the same headings as in the original.

The consultation by FRST occurred over an 15-month period (2006-07). The document noted that the Envirolink Scheme was still evolving, that support processes were improving, and that some early feedback may already have been acted on.

3.1 Overall feedback

The overall feedback to FRST from participating Councils about the Scheme was that it *"was extremely welcome and working well"*, and leading to increased uptake of science and scientific understanding within the participating councils.

> *"For the most part the process and on-line forms were simple to use and highly effective in meeting their needs."*
>
> *"It was also apparent that the measures the Regional Council's had put in place to facilitate the engagement of the councils with Envirolink and its roll out were working very well."*

The document noted that council staff had raised the issue of the added demands on officer time and budgets, and the associated risk within participating councils that a lack of understanding of the benefits of the Scheme amongst senior management could lead to disengagement

The Scheme *"has greatly facilitated communication between the research providers and the smaller regional councils."* Traditionally, these councils had simply been unable to afford this. *"In addition Envirolink is now providing an opportunity for locally based researchers to do research within the regions in which they are based, for the smaller authorities."*

The Scheme is viewed as having enabled input from research programmes around the country into council policy making, thereby enhancing the evidence base which supports policy development.

Amongst the 'pilot' council group *"the capability to engage with Envirolink was varied."* This variation was attributed to the capacity of each council to resource officer time to prepare grants, or to the council's capacity for co-funding. More specifically, some very small councils have one officer covering several areas of responsibility, with very restricted spending discretion. This makes it more of a struggle to submit grant applications; they are more reliant on science provider assistance with completing forms. Limited discretionary funding constrains follow-up work or delays it, and also means there is limited capacity to be involved in many projects at once. Such local resourcing limitations can result in projects taking longer than preferred or expected.

FRST concluded that these (very small) councils would be disadvantaged if larger councils were to gain access to this grant funding source.

On the other hand, other councils in the pilot group have operational State of the Environment policies and strategies within which Envirolink grants delivered specific outcomes. These larger councils have some internal science capacity, and are therefore able to implement recommendations quickly.

3.2 Specific challenges:

FRST noted some specific challenges which have the potential to influence the effectiveness of the scheme. They relate variously to awareness of and utilisation of appropriate research capacity, aligning council and research provider interests, specific issues for advice grants and the Tools process, and project time frames.

3.2.1 Utilising national research capacity

Not all councils are aware of national research capabilities, leading to observations that the best teams are not always contracted for projects, and the suggestion that FRST[6] should provide information on national research capabilities. Councils do not always view CRIs and universities as the most suitable research providers for their work, and suggested that the Scheme should be extended to include other research providers (e.g. private sector, government department scientists).

3.2.2 Aligning council and science provider interests

FRST noted experience of tensions over science providers seen to be pushing projects in directions that benefit them more than the council end users. FRST suggested that councils need to be more active in setting research project direction and need to have a clear idea of their desired outputs. Getting agreement between a council and science provider over direction and outputs is viewed as critical to the quality of service experienced. Avoiding inappropriate expectations such as a potential miss-match between the level of science effort needed to achieve expected outputs was a particular aspect of this issue.

3.2.3 Advice Grants

Small advice grants involve a simple application process. However, this can result in the problem of lack of clarity and protracted discussions with science providers to clarify the brief and reasonable expectations for science outputs.

Medium advice grants involve a more complex application process and this can limit uptake by councils. Specific issues[7] relate to council confusion or FRST confusion over whether such grants are subject to FRST priorities for investment, providers' charge-out rates, and difficulties in being required to align council's needs with existing CRI work.

[6] FRST has subsequently indicated (during internal review of this report) that it does not have the resources to provide information on national research capability. Nevertheless, it was reported that a regional council Envirolink website had been launched in late 2006 to improve council awareness of environmental research funded by FRST

[7] FRST has indicated (during internal review of this report) that it has put in place improvements to streamline the process for medium advice grants.

3.2.4 Tools process

FRST noted suggestions that the Tools process needs to be reconsidered. Two issues were raised: that only major councils are in a position to promote tools projects which tend to reflect their interests and which therefore may be different from smaller councils' interests[8]; also a concern that 'less popular' tools projects never get to the top of the list of priorities.

3.2.5 Project time limits

Some projects take longer than the three month time frame, due to the nature of the process that the project is supporting (e.g. developing an animal pest strategy), or to science provider overload, or council staff changes which modify programme commitments. This leads to a potential budgetary issue for FRST if too many projects go over time. Closer liaison between FRST and councils was suggested to ensure 'exceptions' to the three month rule are clearly identified and monitored and managed to meet both organisations' needs.

3.3 Opportunities to improve Envirolink

FRST also noted opportunities for improving the functioning of the Envirolink Scheme.

3.3.1 Governance process

The issues raised over the governance process relate essentially to the transparency and timeliness of communications between the Governance Committee and the participating organisations. Suggestions to improve this included -

- specify a time frame for responses by the Governance Committee and by FRST investment managers, thereby reducing delays; and

- document the minutes of Governance Committee meetings and make these available to Envirolink coordinators in councils and science providers[9]. Their expectation is that this would provide easy feedback on when an application has been considered and transparency of decision-making reasons and thereby overcome the 'black box' perception. It would also provide an information basis for 'feed forward' contributions from coordinators to the Governance Committee as well.

3.3.2 Communication

Other 'communication' initiatives were also suggested as a result of the FRST consultation, including -

[8] The Envirolink Coordinator has commented (during an internal review of this report) that, in his opinion, it is a misconception that only major councils are in a position to promote tools. He feels that most tools are promoted by special interest groups, and by far the most active one is SWIG – which is chaired by a "small council" staff member..

[9] The Envirolink Coordinator has indicated (during an internal review of this report) that there are no formal meetings/minutes relating to small advice grants, however feedback notes from the Governance Committee are captured on the medium advice grant form.

- increased contact between FRST reviewers (of Tool applications) and Scheme coordinators in regional councils[10]. This is aimed at improving judgments about level of detail required in applications by educating lay people (council coordinators) not familiar with FRST procedures;

- communications targeted specifically at senior level council managers in order to increase their awareness of the benefits of Envirolink in relation to the associated demands on council resources and staff. This is a specific response to the tension that sometimes occurs over competing demands on limited council resources and the risk of council dis-engagement.

3.3.3 Resource efficiency

Picking up on several issues raised previously - science providers' charge-out rates, and supporting council staff to make better use of existing grant-funded knowledge, two suggestions were put forward -

- in some cases it may be more cost-effective to pay for the travel of council staff to a science provider base than the other way round, since council staff time is already paid for but scientists charge-out rates come out of the project budget; and

- there is a need for funding that allows for a repeat workshop programme to sustain or build capability in the participating councils and their communities to access the work/outputs/outcomes from previous or existing grant-funded projects. Sustaining this capacity, in the face of staff turnover and increasing community engagement over time, requires more than one-off knowledge transfer efforts.

3.3.4 Funding issues

Several funding issues were raised. The first is a straightforward logistical issue; whether there needs to be more discretion over the $20k limit for medium advice grants. The second issue is probably more contentious. The text in the FRST document implies that small advice grants and tools grants come out of an on-demand funding process, whilst medium advice grants come out of a pre-allocated funding process. The issue therefore is whether pre-allocation of funds to approved Universities and CRIs should continue, given the concerns expressed elsewhere (see Section 3.2.1) that sometimes CRIs and universities are not always viewed by councils as the most suitable research providers to meet their needs. FRST noted that this is linked to the issue that the Ministerial on which the Envirolink Scheme is founded is interpreted as restricting who councils can go to for science advice.

3.3.5 New investment areas

FRST noted several issues raised in relation to the scope for investments under the Scheme.

[10] FRST has indicated (during internal review of this report) that it is holding discussions with the Envirolink Coordinator on 'the idea of using the council champion as part of the review process'.

At present, councils' needs for science input to natural hazards responses are not formally being addressed through Envirolink. *"There was a view that if this was opened up as an area for advice grants there would be a lot of demand."*

A second issue arises out of council's need for funding on short-term issue-driven 'new' science rather than linking just to existing science programmes of the science providers. The question is where (what investment channel) would this be best addressed?

Thirdly, strong support from smaller councils was expressed for access to post-graduate student research capacity, analogous to the business sector having access to a FRST-funded post-graduate scheme via TechNZ. The FRST document noted that *"whilst the other councils were more cautious, wanting to know how such a scheme could operate, and what the students would do. This idea is clearly worth further development."*

3.3.6 Future structure of Scheme

The FRST document stated *"There is a need to retain advice grant protection for pilot councils"*, reflecting both the benefits already achieved and the concerns about minority interests even within this limited grouping leading to smaller councils feeling disenfranchised.

FRST noted that Envirolink has already generated increased awareness of available research and as a result, many of the participating councils were expressing *"interest in participating in or finding out more about FRST core research programmes."* This is an important observation, in light of Objective 3 which seeks greater collective engagement between councils and the science system generally. The issue is how engagement and representation of councils as a stakeholder group in FRST investment strategies could be most effectively delivered, particularly since they are considered by FRST to be "the most significant stakeholder group for environmental research in New Zealand."

In summary, FRST concluded *"that the scheme is addressing a significant need of a major end-user group for FRST public good research investment."*

4 ANALYSIS OF ON-GOING INDICATOR DATA BY MoRST

4.1 Coverage of monitoring data

Monitoring data contribute information to evaluating all four objectives of the Envirolink Scheme.

4.2 Engagement of regional councils with the environmental RS&T sector

The incidence of advice grants[11] has been used to quantify the performance of the Scheme in increasing engagement of regional councils with the environmental science sector.

4.2.1 Advice Grants sought over time

Data on advice grants sought spans two years - see Table 1 below. Year 1 was a period of 7 months from 1 Dec 2005 to 30 June 2006, while Year 2 was a period of 9 months from 1 July 2006 to 31 March 2007.

Table 1: Number of advice grants sought

Number sought	Total	Year 1 (7 months)	Year 2 (9 months)
Small Advice Grants	208	133 average of 19/month	75 average of 8/month
Medium Advice Grants	48	24 average of 3.4/month	24 average of 2.7/month

Small grants: The data indicate a flurry of small advice grant activity after the initial launch of the Scheme, with monthly grant applications during Year 1 ranging from a high of 44 in March 2006 to a low of 5 in January 2006. Small advice grant applications during Year 2 were more evenly spread, ranging between a high of 13 in August 2006 and a low of 5 in November and December 2006. Small advice grant applications appear to be stabilising at about 10 per month. It is notable that all participating councils made small advice grant applications during Year 1, but one council has made no similar applications at all in Year 2.

Medium grants: Superficially, the data indicate a similar flurry of medium grant activity after the initial launch of the Scheme, with grant applications during Year 1 ranging from 0 to 7 in any single month, while applications during Year 2 ranged from 1 to 4 in any single month. However, taking into account lulls in activity in January and February 2006, and a complete absence of applications in April 2006 and the fact that medium advice grants take more effort to prepare, there has generally been a more even pattern of applications. Medium advice grant applications appear to be stabilising at about 3 per month. Within this overall pattern, three councils made no medium advice grant applications during Year 1, while two councils have made no medium advice grant applications in Year 2.

[11] The monitoring data specifies the "number of advice grants sought". A small number of grants were cancelled after application. These grants were excluded from the data analysed. However, some of the grants recently applied for may not be approved or may be cancelled in the future, but these have been counted.

4.2.2 Advice Grants sought - by council

Numbers of small and medium advice grants sought by participating councils are shown graphically in Figures 1 and 2.

Figure 1: Small Advice Grants by council

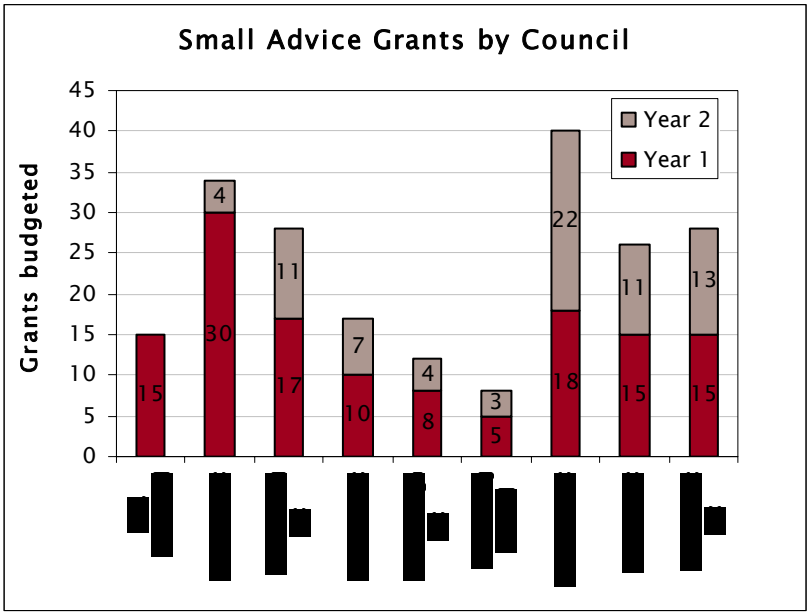
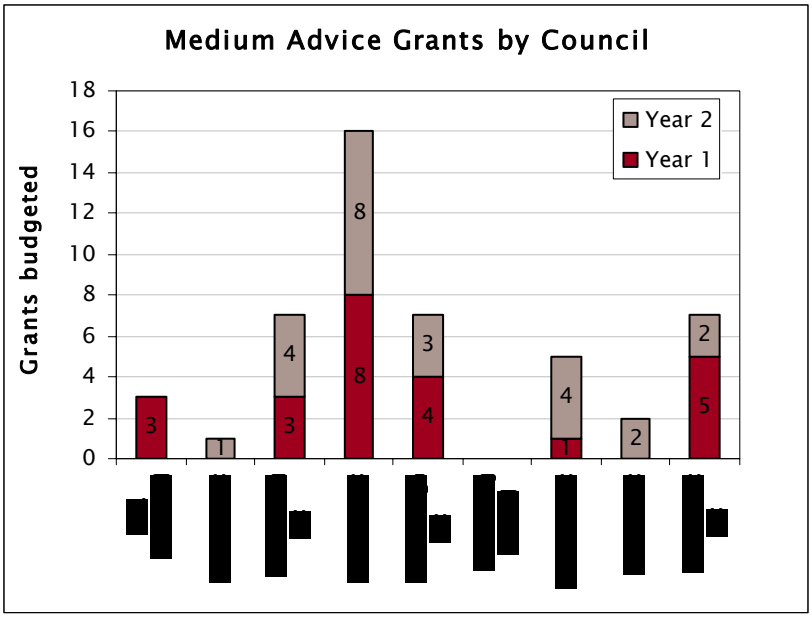


Figure 2: Medium Advice Grants by council



There were considerable differences between participating councils over the number of advice grants sought. Total numbers range between 8 and 45. Such differences appear for small advice grants and for medium advice grants. All participating councils have made at least eight grant applications (and some many more).

The disparities between councils do not appear to relate to the size of the rating base (as indicated by total resident population). While Northland (45 grant applications) and Hawkes Bay (35 grant applications) had regional populations of ~148,000 at the 2006 census, West Coast (35 grant applications) had a regional population of 31,000 and Gisborne (35 grant applications) had 44,000.

It may be worth reflecting that with any innovation - such as the Envirolink Scheme - there are always leaders and followers. Furthermore, individual circumstances (existing relationships, timing of the opportunity in relation to needs for knowledge and priorities for policy making or environmental management in the region, organisational structures or re-structuring, etc.) may make a difference to the level of uptake.

4.2.3 Advice Grants - by science provider

Numbers of small and medium advice grants associated with each science provider are shown in Figures 3 and 4.

Figure 3: Small Advice Grants by science provider

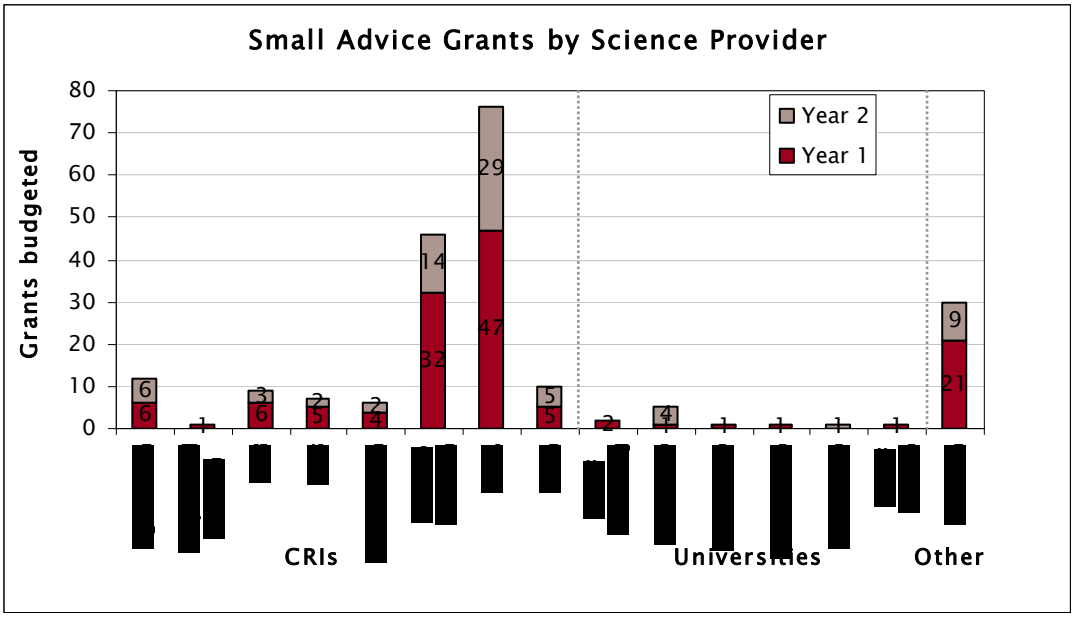
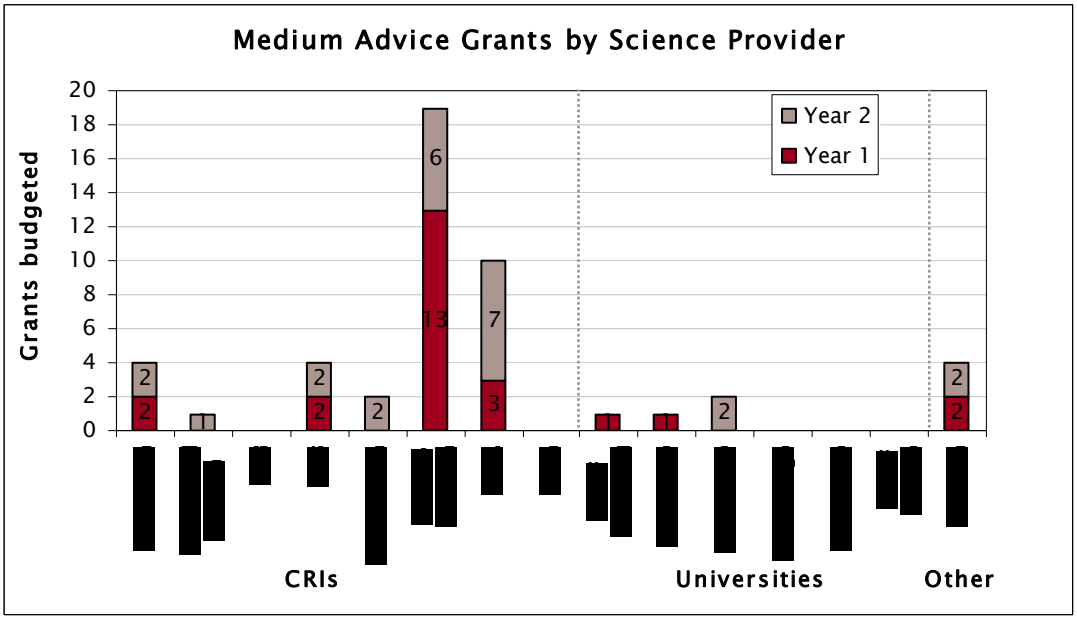


Figure 4: Medium Advice Grants by science provider



Most advice grant requests - small or medium - involved a small number of science providers, although all 15 science providers have been associated with at least one advice grant during the trial period. Universities were notable for the relatively low level of involvement in the Scheme compared with other science providers. It is unclear why this is so.

Some science providers have developed relationships across the whole group of participating councils by virtue of the Envirolink advice grants, notably the Cawthron Institute and Landcare Research, while NIWA has developed such relationships with 8 out of 9. However, not all CRIs have developed such broad networks of relationships with this group of end users.

From a council perspective, most participating councils (7 out of 9) have received advice grant support from a broad cross section of science providers (between 7 and 10 each).

4.2.4 Advice Grants - by Topic

Numbers of small and medium advice grants, categorised by science topic, are shown in Figures 5 and 6.

Figure 5: Small Advice Grants by Topic

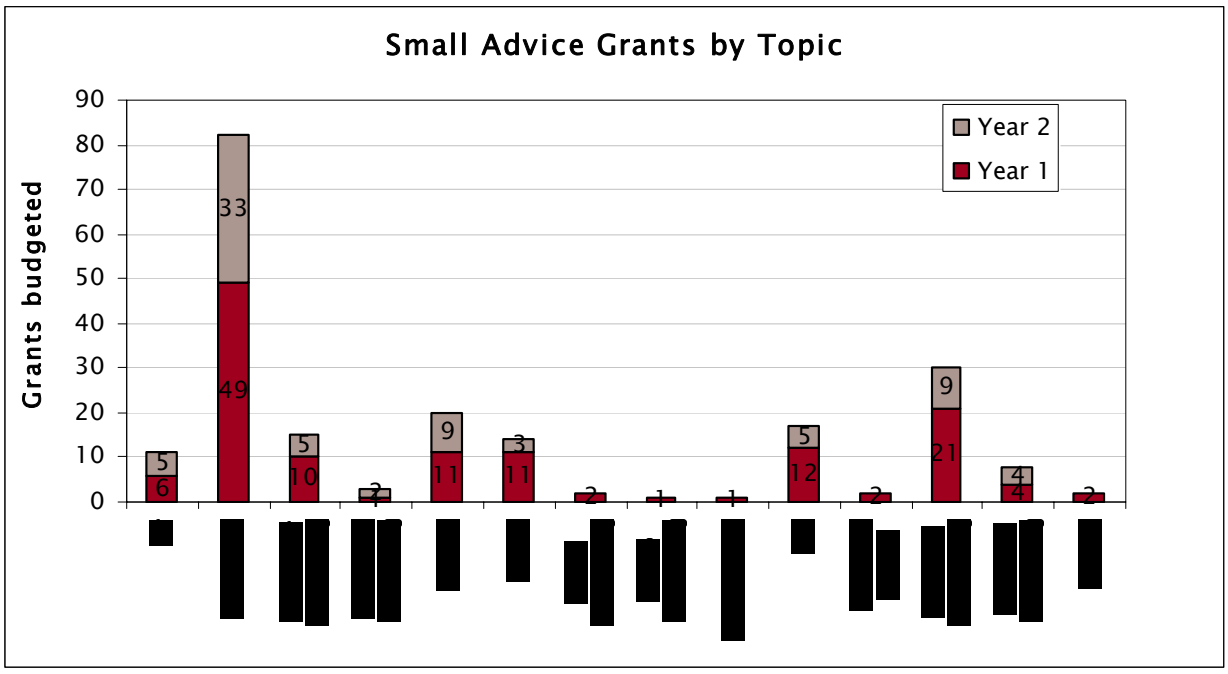
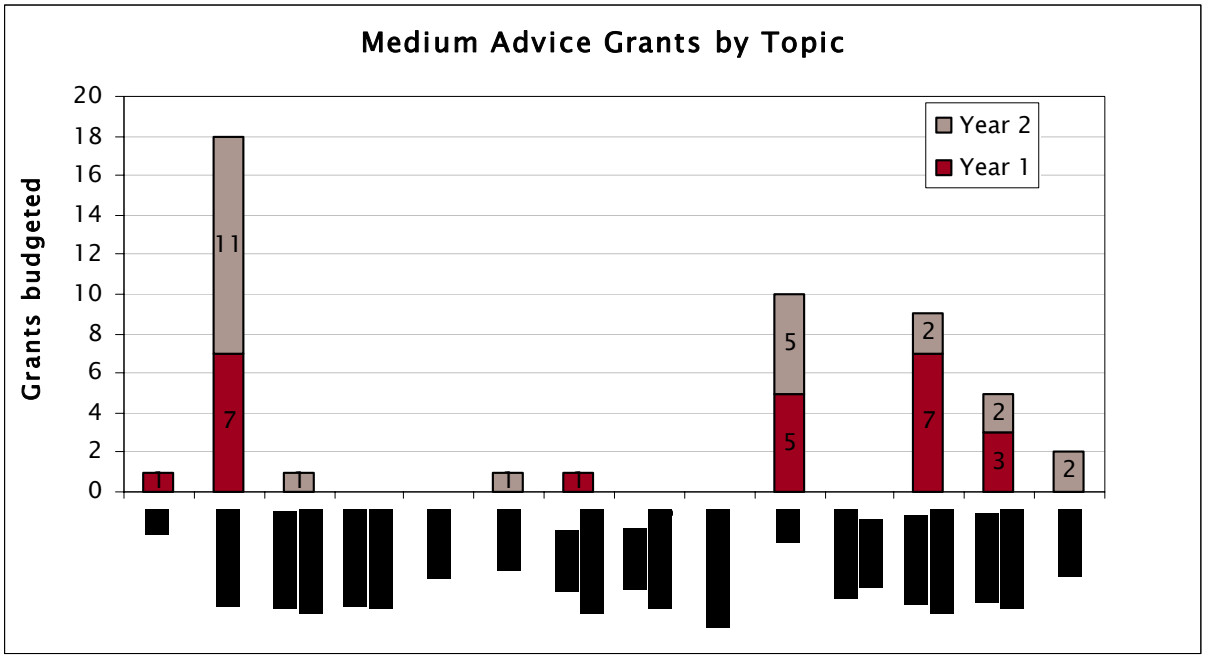


Figure 6: Medium Advice Grants by Topic



A large number of advice grants - small (82) and medium (18) - were on freshwater. The next most popular topics were Terrestrial Biodiversity and Soil. However, it is important to note that there was no coding category for natural hazard[12] related advice (e.g. flooding). Envirolink does not provide advice on natural hazards to human activity, but grants are approved if the results will benefit the environment. Provision of natural hazard related advice has become quite an important area addressed by the scheme, but this is not reflected in the present monitoring data.

The heavy weighting towards freshwater science (either genuinely freshwater science or hazard-related science) may go some way to explaining the disparities in both council and science provider participation[13] in the Scheme.

It is evident from the data that the topic- or policy-related priorities for science input - which themselves are not necessarily constant over time - differed across participating councils during the trial period of the Scheme. While there is an overall preponderance on 'freshwater' science, Environment Southland put in as many advice grant requests for 'soil' and 'terrestrial' science as it did for 'freshwater' science, and Marlborough DC gave considerably more attention to 'soil' and 'terrestrial' science than it did to 'freshwater' science. Gisborne DC stood out in terms of the proportion of its advice grant requests devoted to 'air' science, while Nelson, Tasman and the West Coast RC all gave relatively more attention to 'coastal' science than did other councils.

[12] e.g. river flooding was mainly coded to "freshwater".

[13] Inability to distinguish genuine freshwater science from natural hazard-related science (in the current data set) makes it impossible to analyse the data in relation to the science capacities of different science providers. However, it seems logical that demands for applied natural hazard-related science will not be directed evenly across the group of science providers.

4.3 Science input to the environmental management activities of regional councils

4.3.1 Council feedback on completed advice grants

Councils were asked to provide feedback on completion of advice grants, as part of the monitoring of the scheme. The data summarised by MoRST covers 82 completed advice grants, the most recent of which was dated October 2006. The numbers of completed advice grants involving each participating council are shown below.

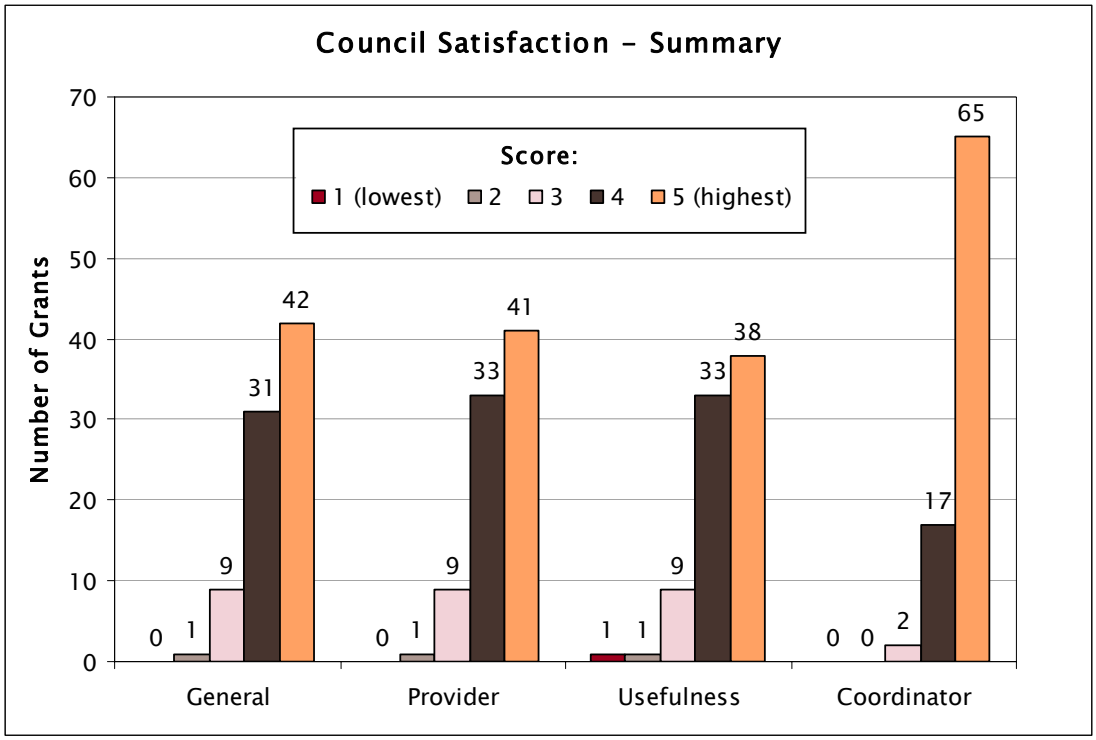
Table 2: Numbers of completed advice grants with council responses recorded

Participating Council	# completed
Horizons	14
Hawkes Bay	12
Tasman	11
Gisborne	10
Southland	10
Northland	9
Marlborough	7
West Coast	6
Nelson	3

Feedback from Councils was requested on the following (using a 5-point scale with 5 being 'most satisfied' and 1 being 'very dissatisfied'):

- their general level of satisfaction;
- the extent to which the research provider delivered what was expected;
- the extent to which the research advice would be used by Council in its business; and
- the role of the Envirolink Coordinator.

Figure 7 Council satisfaction - summary



[

Figure 7 summarises the generally very positive council feedback. All questions scored predominantly 4 or 5. 88% of responses scored 4 or 5 for general council satisfaction; 88% of responses scored 4 or 5 for the science provider delivering what was expected, 87% of responses scored 4 or 5 for science advice that would be 'used' by Council in its business. Thirty per cent or 25 grants scored 5 for all four categories.

As an overall measure, these results would appear to indicate high levels of council satisfaction. Analysis of the less positive responses does suggest some differentiation. All question responses scoring 3 or less came from only 17 advice grants. Nine of those grants scored 3 or less for multiple questions. Of the 17 grants, 10 were from two regional councils. The lowest scoring grant scored 2 for each of general, provider and usefulness.

Lower feedback scores do not appear to deter regional councils from continuing involvement in the scheme. One council which scored the lowest levels of 'general' and 'provider' satisfaction (although still averaging about 3.5 out of 5) continued its involvement with a similar number of advice grants sought into Year 2.

With the exception of two councils defining experience at the extremes, MoRST's statistical analysis revealed no significant differences in satisfaction levels amongst the other seven councils - all relatively high levels of satisfaction. There is also no statistical evidence that general levels of council satisfaction vary depending on the science provider.

An analysis of comments contained in the council feedback forms is summarised in Appendix 3.

4.3.2 Science Provider feedback on completed advice grants

In the case of Science Provider feedback, the data cover 96 completed advice grants.

In general, Science Providers recorded very high levels of endorsement of the advice requests against several criteria, as summarised in Table 3.

Table 3: Summary of Science Provider feedback endorsement

Criterion	**"Well"**	**"OK"**	**"Not at all"**
fit with area of science expertise	95%	5%	0%
extent of meeting the request	95%	5%	0%
	"Realistic"	**"Not realistic"**	
realism of the request	99%	1%	

On the need to clarify the intent of the request before proceeding, 60% required some degree of clarification. The data show some very uneven experience across different councils. For six councils, the majority of requests made by councils required clarification. Indeed for two councils every request required clarification. For only three councils was there a majority of requests which did not require clarification.

These results and particularly the disparities are unsurprising, given the early stages of the Scheme and the fact that some councils had hitherto had little direct contact with science providers. It might be expected that the need for clarification will reduce over time, as familiarity with the Scheme grows and communications between council staff and scientists improve. An analysis of comments contained in the science provider feedback forms is summarised in Appendix 3.

4.4 Engagement between councils and the science system generally

As part of Science Provider feedback on completed advice grants, the question was asked, *"Have there been any requests or interest from other councils in regard to this advice since the time you have begun consultation?"* Responses were affirmative in 44 out 96 (i.e. 46%) of completed advice grants.

Some comments made on the feedback forms reflect on the Scheme's contribution to 'greater collective engagement between councils and the science system generally'. The numbers of such comments are not high. They were most likely to relate to the Scheme being important in disseminating science information and knowledge to councils and communities (19) and the Scheme acting as a catalyst for facilitation between stakeholders to achieve a common understanding and working relationship (12). In one case, a completed advice grant was reported as resulting in a bid for a medium advice grant, reflecting an increased level of engagement.

4.5 Envirolink process

Data have been assembled in relation to two aspects of process - the timeliness with which various stages of approvals proceed and the advice is ultimately provided, and the usefulness of the Envirolink Coordinator to the process.

4.5.1 Timeliness data

Timeline data was collected by different sources and close examination of the data found a number of inconsistencies and missing entries. Therefore, only selected stages, where reasonable samples were available, were analysed. Process flow charts for advice grant approvals are presented in Appendix 4.

Small advice grants:

Coordinator approval was mainly on the same day with little variation. Science provider approval was normally within a week, with some notable variation (up to 179 days in one case, reasons may include clarifying requests). Science provider approval to FRST invoicing was more varied, on average close to four months (the longest period being 372 days).

While these results indicate prompt processing by the Envirolink Coordinator and generally prompt acceptance by the Science Provider, the time to final delivery of advice for small advice grants was varied, in some cases in the extreme.

Medium advice grants:

Again coordinator approval was very fast, Governance Committee approval averaged four days with some variation (up to a maximum of 71 days) and FRST approval averaged about two weeks, again with some variation (up to 76 days).

The extent to which these indicators of timeliness are viewed as acceptable or problematic by the participating councils can be gauged from their Council feedback on completed advice grants. Only one-in-five completed advice grants occasioned comments on timeliness; they ran 3:1 in favour of “advice timely” (13) versus “advice not timely” (4). A similarly small number (4) of Council feedback comments refer to Council dissatisfaction with the process.

Despite the fact that a few grants are exceedingly slow to process, Councils do not appear overall to view this as a problem with the Scheme. Perhaps, delays in some instances are inevitable, if expectations need to be clarified and the advice re-framed.

4.5.2 Usefulness of Envirolink Coordinator to the process

Feedback explicitly about the performance of the Envirolink Coordinator rated the most favourable of all aspects of the Scheme assessed on the completion of advice grants. In 78% of cases, satisfaction with the Envirolink Coordinator’s timeliness and usefulness was rated at 5 out of 5, and in another 20% at 4 out of 5.

These assessments are consistent with the evaluation of timeliness described in the previous section.

5 END-OF-TRIAL SURVEY BY TAYLOR BAINES & ASSOCIATES

As part of this contract, Taylor Baines & Associates developed questionnaires (refer to Section 2.2) for use as structured interview schedules with coordinators in all nine participating councils and five of the participating science providers. These questionnaires (refer to Appendices 5 and 6) addressed matters pertinent to each of the four Objectives of the Envirolink Scheme.

5.1 Engagement of regional councils with the environmental RS&T sector

5.1.1 The quality of relationships between participating councils and science providers

Results on the number of current relationships between researchers and staff in participating councils are presented below in Tables 4 and 5. These responses show no correlation between the number of staff relationships and the size of the council[14] or the size of the science organisation.

Table 4: Number of relationships - responses from participating councils

Number of relationships with science providers reported by participating councils	Number of respondents
1	
2	
3 to 5	2
6 to 10	3
>10	4
Total	9

Table 5: Number of relationships - responses from science providers

Level of interaction with councils reported by science providers	Number of respondents
1 - Low	
2	
3	
3 to 4	1
4	1
5 -High	3
Total	5

Two of the nine participating councils chose not to respond to this question to rate the quality of their relationships with science providers. One noted their experience *"varying depending on*

[14] Inferred in a comparative sense from the size of the usually resident population at the 2006 census, which is taken as an indicator of rating base.

the subject and provider" and remarked that such relationships are only just now beginning to develop *"We actually felt disappointed in the outcome."* The second commented that *"only in a few cases has there been a continuing relationship as a result of the Envirolink scheme".*

However, responses from the remaining seven councils display a clearcut and consistent trend as the following table indicates. This is not just an overall impression from the group of councils; it is evident from the distribution of responses in Table 6 that all seven councils reported improved relationships with science providers.

Table 6: Changes in the quality of relationships - responses from participating councils

Quality of relationships with science providers	Number of respondents	
	Before Envirolink	Now
1 - Poor	1	
2	1	
2 to 3	1	
3 - Satisfactory	4	
3 to 4		1
4		4
4 to 5		2
5 - Excellent		
Total	7	7

Responses (see Table 7) from the five science providers interviewed were less clearcut. While an overall impression of improved relationships with participating councils is apparent, detailed analysis of the results shows that improvements were experienced by three out of five science providers. None experienced a loss of quality in their relationships with councils. However two councils commented that improved relationships had occurred for a *"small number of councils"*, or that they had *"excellent relationships with councils before the scheme commenced"*.

Table 7: Changes in the quality of relationships - responses from science providers

Quality of relationships with councils	Number of respondents	
	Before Envirolink	Now
1 - Poor		
2		
3 - Satisfactory	2	
4	1	2
5 - Excellent	2	3
Total	5	5

5.1.2 Involvement of council staff in training in environmental science

Responses to the question on the number of council staff who currently take an active role in environmental science work suggest a broad correlation between the number involved and the size of the organisation.

Not a single participating council indicated any increase in the number of such staff during the Envirolink trial period. However, seven out of nine councils reported that staff have undertaken some form of science or technical training as a result of Envirolink. This indicates a general investment in in-house environmental science capacity by most participating councils, and an enhanced capacity to engage with the environmental science and research sector.

In the main, such training involved staff participation in workshops run by science providers or by councils with funding from the Envirolink Scheme[15]. Some training was more hands-on in nature - guidance on specific data analysis techniques, restoration techniques for riparian management, use of new river gauging technology and stream-flow measurement equipment.

5.1.3 Exchanges of staff between science providers and councils.

Researcher visits to councils:

As Table 8 shows, the Envirolink Scheme has certainly resulted in researcher visits to participating councils.

Table 8: Researcher visits to councils as reported by councils

Number of researcher visits	None	<5	6-10	>10
Number of councils reporting visits	0	3	3	3

Two of the three councils receiving the greatest number of visits were councils with the fewest advice grants. Another council which received more than 10 visits experienced a high proportion of less satisfactory advice outcomes. In contrast, the three councils which received

[15] On topics such as stream-flow measurement, coastal erosion and global warming

only 3-5 visits had relatively high numbers of advice grants and relatively high levels of reported satisfaction.

It is interesting in this respect to note that science provider responses (see Table 9) almost universally indicate that more than 50% of advice grants involved visits, an indicator which aligns closely with the earlier result that 60% of grant requests required some degree of clarification (refer to Section 4.3.2).

Table 9: Advice grants involving researchers visits to councils

% of advice grants involving researcher visits	<20%	20-50%	>50%	don't know
Number of science providers reporting visits	0	0	4	1

Council staff-researcher interaction on a face-to-face basis may be important in facilitating useful advice in situations where there is the need to clarify requests. However, these results suggest that so far the visits may not have been as effective in building constructive working relationships as might have been expected.

Researcher secondments to councils:

The Envirolink Scheme has resulted in no secondments of research staff from science providers to councils.

Council responses overall imply that secondments were not anticipated - *"not wanted to use it in this way"; "there was no need under present Envirolink grants."* Three councils offered no explanations while three others implied that the grants Scheme did not lend itself to secondments - *"a lot of projects have been short term"; "grants not sufficient to fund a secondment from a science provider"; "has not been the opportunity".* However, one council did indicate that it has been *"in discussion with (a science provider) with regard to freshwater monitoring".*

Science provider responses similarly reflect little expectation that secondments would occur - *"Secondment has not been considered essential to impart knowledge/provide expertise for projects to date"; "It has not been raised as a possibility".* One science provider commented that secondments are *"extremely difficult to arrange, require a lot of planning".*

It appears that participants - councils or science providers - have been focused narrowly on collaborative activities that can be funded totally out of the Envirolink Scheme, rather than viewing the Scheme as a catalyst to other forms of collaboration such as secondments that could have benefits for both organisations.

5.2 Science input to the environmental management activities of regional councils

5.2.1 Specific benefits to councils

On the basis of all their science advice grants so far, the Councils were asked to score the Scheme's effectiveness in facilitating science input to a range of council capacities, using qualitative descriptors. Results are set out in Table 10 below.

Table 10: Scheme effectiveness in facilitating benefits to councils

Benefit to council	Scale of effectiveness - number of councils				
	None	Low	Medium	Medium to High	High
Increased environmental understanding by council staff of science issues	-	1	6	-	2
New or improved environmental management practices or tools in the region	-	1	5	1	2
New or improved environmental policy decisions by council	2	2	4	-	1
Informing councils stakeholders/public	-	3	3	2	1

For most types of benefit, most councils gave the Scheme a mid-range score (medium effectiveness)[16]. The variation either side of medium is evenly balanced - 9 scores of 'medium-high' and 'high' contrasting with nine scores of 'low' or 'none'.

For a Scheme which is still in relative infancy, there is a rationale apparent in the overall pattern of scores. Increased environmental understanding by council staff of science issues and new or improved environmental management practices or tools have the most positive overall scores. This is not surprising, since councils' science staff have been the initial targets for participation in the Scheme. It might be expected that benefits for new or improved environmental policy decisions (involving senior staff and councilors) would take more time to flow through. One of the councils which scored this benefit as 'none' also commented *"but are expected in future"*. Using the science to better inform stakeholders and the public about environmental issues might also be expected to follow on from creating greater knowledge and confidence amongst the relevant council staff.

5.2.2 Influence on development of Councils' environmental science strategies

At the present time, four of the nine councils have adopted an environmental science strategy, while two other councils are in the process of developing one. Asked whether the Envirolink Scheme has influenced the development of these strategies, three councils responded 'yes'[17] and 3 responded 'no'.

Additional comments were provided as to the nature of the Envirolink influence in each case -

[16] In fact, the question provided for a four-point scale which had 'medium' as the second most favourable score. Several councils responded with hybrid medium-high scores, resulting in the additional column in the table above.

[17] Two of these had already adopted their strategies whilst the third council was still in the process of developing one.

"Envirolink programme results are used in the next stage of the process of policy development"

"Assisted in the review of monitoring protocols and tested some new tools"

"By enabling an external review of that strategy".

5.3 Engagement between councils and the science system generally

5.3.1 Extent of councils input to science provider environmental science strategies or other research programmes

Four councils responded that they have been more active in influencing science providers' environmental science strategies. Two of these are councils which have made relatively few requests for advice grants so far during the Scheme's operation. In all cases, the science providers concerned are those which have been most strongly engaged in the Envirolink Scheme.

Additional comments were provided as to the mechanism of influence in each case -

"In terms of bidding for FRST round funding for a research programme. Through the Envirolink tools project."

"Representation on advisory groups. Local Government special interest groups."

"Microbiol source tracking i.e. what put E. Coli in the river (human or animal). Both science providers working in this area."

"(For one science provider) a council staff member is on a review panel to audit the programme. (Another science provider) has a joint programme with our council for modeling of currents in Golden Bay."

Three of the science providers referred to in the council responses above - and who were surveyed by Taylor Baines & Associates - corroborated the council responses; they reported having experienced input from participating regional councils to development of some of their research programmes, as a result of the Envirolink Scheme. The other two science providers surveyed reported no such inputs. Council and science provider responses appear well aligned on this question.

Additional comments were provided as to the mechanism of influence in each case -

"Envirolink may be too new to have many examples of this having occurred in funding rounds. Most research programmes are already in place and will be rebid in a few years time. The types of questions that regional councils are asking will influence the direction the research programmes take. For example, an Envirolink funded workshop about riparian management cropped up at a research planning workshop I attended."

"Involvement in planning for urban areas - in particular sustainable development"

"Increased involvement in setting priorities to research for a biosecurity programme"

5.3.2 Quality of relationships between different councils over environmental science or research matters

Asked to rate the quality of relationships[18] between different councils over environmental science or research matters, eight of the nine participating councils responded, with results shown in Table 11 below.

Table 11: Quality of inter-council co-operation over environmental science matters

Quality of relationships with other councils	Number of respondents	
	Before Envirolink	Now
1 - Poor		
2	4	1
3 - Satisfactory	4	3
4		4
5 - Excellent		
Total	8	8

While an overall trend is apparent in the tabulated data, detailed analysis of individual responses reveals that four councils experienced improvements in the quality of these relationships during the Scheme's trial period and four experienced no change. No councils reported a decline. When asked if staff had developed new relationships with staff in other councils as a result of Envirolink, five out of nine councils responded 'yes'. Typically - for four of the five councils - this had resulted in 3-5 new relationships; in the fifth case, 6-10 new relationships.

Envirolink appears to have initiated a modest improvement in the incidence and perceived usefulness of inter-council co-operation over environmental science or research matters - for some councils. Since the Scheme's primary focus during the trial period has been on fostering relationships between councils and science providers, this is perhaps a more indirect effect of the Scheme. It might be expected that more inter-council co-operation will occur as participants gain more experience of the Scheme and look for ways to improve its efficiency. This might occur through shared advice grant activities on common topics or even collaborative learning[19] by several councils, triggered by particular aspects of science advice.

5.4 Envirolink process

[18] Guidance was provided on the intent of the 5-point scale - refer to Regional Council questionnaire Qu.3(a)

[19] e.g. joint training sessions on applying new monitoring technology or data analysis techniques, or joint workshops with science providers.

The effectiveness of the Scheme was examined across two dimensions - scope and process. Councils and science providers were asked to identify any issues which they believed were limiting the Scheme's effectiveness, and then to suggest remedies for overcoming those limitations.

5.4.1 Scope

Scope refers to questions of what activities can or cannot be funded through the Envirolink Scheme, and the adequacy of such funding arrangements.

Science provider perspective:

Science providers raised a variety of issues concerning the present scope of the Scheme, as summarised in Table 12 and subsequent commentary. One of the five science providers surveyed raised no issues of scope at all.

Table 12: Issues for the scope of the Scheme - science provider responses

Issue	# science providers raising the issue
financial limits of advice grants	4
inflexibility of funding arrangements	1
exclusion of research	2
exclusion of natural hazards	1
access to the Scheme by other councils	2

The main issue with regard to the scope of the Scheme that was raised by science providers were the financial limits of the advice grants. They observed that the financial limits for small advice grants ($5K) and medium advice grants ($20K) were inadequate for the purposes of the Scheme, and suggested that the upper limit small advice grants be raised to $7-8K and the limit medium advice grants to $40K. They also noted that funding arrangements are not sufficiently flexible to permit cross-boundary projects in which several regional councils could participate simultaneously and collaboratively, and the inability to undertake research work as part of an advice grant, even where this was considered necessary in order to customise or ground truth their research to individual council needs.

Although many advice grants requested by councils are in fact associated with natural hazards issues, the Scheme in its present form imposes limitations - "*Envirolink does not provide advice on natural hazards to human activity, but grants are approved if the results will benefit the environment*".

Science providers raised the issue that the present Scheme is restricted to a limited number of councils. Respective remedies for these issues proposed revisions to the Scheme which included recognising natural hazards as an environmental matter, adding more councils to the Scheme, expanding funding criteria for medium advice grants to facilitate cross-boundary projects, and allowing small amounts of research work to be undertaken as part of advice grants.

Regional council perspective:

Three of the issues raised by participating regional councils are the same as for science providers. Councils also raised several other issues as summarised in Table 13 and subsequent commentary. Two of the nine councils surveyed raised no issues of scope at all.

Table 13: Issues for the scope of the Scheme - council responses

Issue	# councils raising the issue
financial limits of advice grants	3
inflexibility of funding arrangements	3
exclusion of natural hazards	3
effectiveness of knowledge transfer	2
range of science providers	2
linking environmental science to social science	1

Councils identified a number of aspects of advice grants that they suggested could be remedied. For some the financial limit of the small advice grant ($5K) was too low, and they proposed raising it to $10K. One council considered the small advice grant was too inflexible for the face-to-face transfer of knowledge and suggested that instead of providing a fixed sum of $5K funding up to that level be available to allow scientists to undertake one-day workshops for council staff. Other councils mentioned the arbitrary nature of advice grants and pointed out that there is no intermediate funding between advice grants and the Tools projects that allows councils to collaborate together on a project. One of these councils proposed extending the financial limit of medium grants to a higher level to meet this need.

Three councils noted that natural hazards such as coastal erosion, flooding etc were excluded from the Scheme and wanted its scope broadened to include them. Another council did not believe it was appropriate to include research work in a Scheme that was established to promote the transfer of scientific knowledge.

Several councils had concerns about increasing the effectiveness of knowledge transfer by science providers. One council suggested extending the Scheme's criteria to allow presentations and road shows by science providers to council staff and other stakeholders. Another proposed funding be increased to allow staff from science providers to be seconded to councils. Two other councils noted the limited number of science providers that are available through the Scheme and the copyright of information by science providers which restricts the transfer of knowledge. The remedy suggested for expanding the former was to allow science providers from overseas and private research organisations in New Zealand to participate in the Scheme, while it was proposed that all stakeholders address the issue of copyright restrictions by revising the Scheme's criteria to allow a wider dissemination of scientific knowledge.

5.4.2 Process

Process refers to processes for developing grant applications, for administering the Scheme, and the overall time allocations permitted.

Science provider perspective:

Science providers raised the following issues concerning the present administrative processes of the Scheme, as summarised in Table 14 and the subsequent commentary.

Table 14: Issues of administrative process - science provider responses

Issue	# science providers raising the issue
process for Tools component: priorities	4
short time period for completion of advice grants	1
uncertainty about the respective roles	2
lack of awareness by science providers of councils' needs	1

The process for the Tools component of the Scheme was of concern for four of the five science providers. Specific concerns they mentioned regarding the Tools component were a lot of redundancy and repeated information in the application form, the complexity and uncertainty associated with the approval and selection of projects, and a perceived lack of transparency regarding the setting of priorities as science providers do not participate in this prioritising process. The remedies these science providers suggested included streamlining the Tools application form, open advertising of the dates for the application process, establishing a timeline for the decision making of the Governance committee and FRST, having staff available for processing applications in a reasonable time frame, and developing an open process for science providers to feed priorities into the Tools list. By contrast science providers are generally satisfied with the procedures for processing small and medium advice grants.

Other process issues identified by science providers were the short time period (three months) for the completion of small and medium advice grants and uncertainty about the respective roles of FRST's Environlink coordinator and FRST's business manager who is assigned to the science provider. It was suggested these issues be remedied by extending the completion period for advice grants to 9-12 months and clarifying the roles of the Envirolink coordinator and FRST's business managers with respect to the Scheme.

A university representative pointed out that the Scheme's process differs from the standard procedures of FRST by not being routed through the organisation's research office. Thus the research office did not know what staff were involved in Envirolink advice grants, and any particulars of those grants, until informed by a researcher at the organisation that a grant had been approved. The representative of the organisation suggested this situation could be remedied by councils making formal contact with its research office once the decision had been made to apply for a grant from the Scheme. Applications and the reporting of grants would then be processed through the portal of FRST thereby ensuring that the research office would know about them. The lack of awareness by some science providers of councils' needs in

environmental matters could be addressed by publicising regional councils' needs to CRIs through prioritised lists of projects for Envirolink funding.

Regional council perspective:

While participating councils also had issues with the Tools process, their other issues were different, as summarised in Table 15 and the subsequent commentary. Three of the nine councils raised no process issues, while another one made no response.

Table 15: Issues of administrative process - council responses

Issue	# councils raising the issue
process for Tools component: priorities	4
communication issues	3
under-representation of smaller councils on the Governance Committee	2

While several councils acknowledged that the process for small and medium advice grants works well, there were two major areas of concern - communication issues and the process for the Tools component of the Scheme. Communication issues that were raised included a lack of feedback from meetings of the Governance Committee, poor communication between FRST staff and council coordinators, and the slow process for advice grants due to council coordinators sometimes occupying a position at too high a level in a council's management. Suggestions for overcoming these difficulties were circulating the minutes of the Governance Committee to councils, and reviewing who should have the role of the coordinator in each council. Three councils considered the process for the Tools component of the Scheme to be too lengthy and proposed remedies such as a regular update of Tools projects, FRST to examine its part of the process for Tools grants, and a workshop for all parties to better understand the process. A fourth council observed that Tools grants have been captured by science providers that focus on surface water topics and called for a more robust process.

Two councils also noted that representation on the Governance Committee is drawn from larger councils[20] and one council stated that some science providers appear to have double sold projects to more than one council (although no evidence was supplied to support this claim). It was suggested that representation of smaller councils on the Governance Committee be increased, and an annual workshop of councils be held to remedy these two issues.

In summary, the Tools component of the Scheme was a major concern for four of the five science providers and four councils. The issues they identified - complexity of the application forms, together with the length of time and uncertainty of the process - were in stark contrast with the general level of satisfaction with the manner in which the small and medium advice grants are processed. With only one round of the Tools component being completed some of this dissatisfaction may be due to "teething" problems. Yet there are early signs that this component requires some modification to fully meet the first three objectives of the Scheme.

[20] The Envirolink Coordinator has indicated (during an internal review of this document) that the Governance Committee includes 3 "small councils" and "2 large councils:. In his opinion the balance is appropriate, an observation with which we agree.

5.5 Overall evaluation of benefits by councils and science providers

Both regional councils and science providers were asked to summarise the main benefits they have experienced as a result of the Envirolink Scheme.

Regional council perspective:

In summary, the scheme allows councils access to additional assistance from research organisations to address specific science issues. This enables them to access scientific knowledge, new technology and science advice that might not otherwise be afforded either because of a small rating base or because no sum had been allocated in the council's budget.

Science advice received through the scheme has been more specific to the needs of councils. Councils have experienced better communication with science providers and other councils. Through the scheme they have also experienced better relationships with science providers.

Benefits to individual councils include the collection and sharing of information with stakeholders, reinforcement of existing relationships with science providers by payment for advice, support for new rounds of policy development, provision of science advice as input for setting up new projects, increased knowledge of projects undertaken by other councils, and collaboration with other councils on Tools projects.

The following is a selection of illustrative comments received -

> *"We bring CRIs and universities into our programmes and they help us with some of the tough questions. Supporting new rounds of policy development using an evidence base by answering tough questions under the RMA."*
>
> *"Science providers promote themselves to us more and focus on our needs."*
>
> *"Able to get access to up-to-date scientific information that we would not otherwise be able to afford because we are a small council with a limited rating base. Don't employ scientists so the ability to do this is very important."*
>
> *"Have better relationships with CRIs and alternative science providers, and thus more choice. Getting science knowledge in an applied format, with a quicker update of such knowledge."*
>
> *"Provided input for a number of projects we have been considering with a quick turn around time for approval of grants from the Envirolink coordinator. Enabled large projects to proceed. The advice gave good directions to projects and helped them get underway."*
>
> *"Built closer working relationships with individuals at science providers who are working on areas of specific interest to us. Working with other councils on tools projects - working consistently and improving best practice across the country."*
>
> *"Envirolink is the best technology transfer method yet to happen out of FRST because we are structuring the questions that are asked."*

"Allows us to reinforce existing relationships with science providers as advice is funded through Envirolink - takes the guilt way from it because they are being paid. "

"Only have a resource unit of 4 people and have little time for analysis of data because they spend most of their time collecting data. Our staff are not highly qualified scientists , but through Envirolink get input from scientists who provide extra depth from an international perspective ."

Science provider perspective:

In summary, the Envirolink Scheme has improved interaction between science providers and participating councils. Science providers are more aware of the specific science needs of councils, while councils have a better understanding of what both research organisations and science itself can do for them.

There has been some spill over into other FRST funded research in terms of enabling one science provider to better focus its research projects towards the needs of end users and by enhancing the profile of another research organisation as a provider of environmental research.

The following is a selection of illustrative comments received -

"Smaller councils were not able to afford our services. The Envirolink process has allowed us to greatly expand the number of these contacts and better understand the needs of small councils. This in turn enables us to direct FRST funded research to address end user needs."

"Facilitating closer links with staff from other Crown Research Institutes to generate best group of people for specific tasks."

"a better understanding of what we can do for them, and what science can and cannot do for them. .... Through this process councils have become less reticent about seeking advice from us."

"Links researchers with local communities through councils and makes our research relevant to them."

"It has enhanced our profile as a provider of environmental research with FRST."

Role of the Envirolink Coordinator:

Our interviews with representatives of councils and science providers revealed the pivotal role the Envirolink Coordinator has in the effective operation of the Scheme. Both the formal structure of the role as demonstrated by the procedures whereby the Coordinator operates, and the personal qualities of the present holder of this position, significantly contribute to the high regard in which the Scheme is held by the people we interviewed.

6 DISCUSSION AND CONCLUSIONS

6.1 Achieving the Scheme's stated objectives - the evidence

The Envirolink Scheme was established to promote the dual outcomes of increasing the return on investment in environmental RS&T by facilitating its uptake by regional councils, and ensuring that environmental management by regional councils is fully informed by currently available RS&T. These aims and objectives guided this evaluation for the trial period. Future evaluations will have the advantage of this evaluation for providing firm benchmarks for comparison.

The following sections draw together and summarise the evidence which indicates the extent to which the Envirolink Scheme has achieved its objectives during the trial period.

Taken together, the evidence suggests some substantial positive achievements for the existing group of participants.

6.1.1 Objective 1 - to increase the engagement of regional councils with the environmental RS&T sector

Achievements in relation to Objective 1 are demonstrated by results drawn from both the MoRST-analysed monitoring data and the Taylor Baines survey data -

- the number of advice grants sought be regional councils: all participating councils have made at least eight advice grant requests, and some have made many more; most participating councils (7 out of 9) have received advice grant support from a broad cross section of science providers (between 7 and 10 each) through the Scheme;

- the number and quality of relationships between participating councils and science providers: the seven councils which responded to this question all reported improved relationships with science providers; three out of five science providers reported improved relationships with participating regional councils;

- the involvement of council staff in science training: while no councils reported increases in the number of staff taking an active role in environmental science work, seven out of nine councils reported that staff have undertaken some form of science or technical training as a result of Envirolink.

6.1.2 Objective 2 - to improve science input to the environmental management activities of regional councils

Achievements in relation to Objective 2 are demonstrated by results drawn from both the MoRST-analysed monitoring data and the Taylor Baines survey data -

- regional council satisfaction with completed advice grants:30% of all advice grant outputs were rated 'most satisfied' by regional councils; another 50% of all advice grant outputs were rated with either 4s or 5s (on a 5-point scale); 17 of the 82 completed advice grants recorded for this evaluation contained individual elements scoring 3 or

less, although only one completed advice grant recorded an average score (across all elements) below 3.

- science provider satisfaction with completed advice grants: science providers recorded very high levels of endorsement of the advice requests against the criteria of fit with area of science expertise (95% fit well), realism of the request (99% realistic), and extent of meeting the request (95% well met);

- specific benefits to councils: for most types of benefit, most councils gave the Scheme a mid-range score (medium effectiveness). The variation either side of medium is evenly balanced - 9 scores of 'medium-high' and 'high' contrasting with nine scores of 'low' or 'none';

- influence on the development of councils' environmental science strategies: out of six councils which either have adopted environmental science strategies or are in the process of developing strategies, three indicated that the Envirolink Scheme activities had positively influenced these activities;

6.1.3 Objective 3 - to contribute to greater collective engagement between councils and the science system generally

Achievements in relation to Objective 3 are demonstrated by results drawn from both the MoRST-analysed monitoring data and the Taylor Baines survey data -

- requests or interest by other councils: science providers indicated that 44 out of 96 completed advice grants (i.e. in 46% of cases) had attracted enquiries from other councils;

- council input to science provider environmental science strategies or other research programmes: four councils responded that they have been more active in influencing science providers' environmental science strategies, data which was corroborated by science provider responses;

- new staff relationships between councils: for five out of nine councils, staff have developed new relationships with staff in other councils as a result of the Scheme.

6.2 Issues of scope and process requiring attention and decisions

A range of issues was raised during the end-of-trial interviews conducted by Taylor Baines & Associates that had also been raised during the previous FRST consultation with participating councils. These are issues, the resolution of which could improve the effectiveness of the Scheme or assist with its administration. This range of issues included -

- financial limits on advice grants;
- the exclusion of natural hazards;
- opening the Scheme to other larger regional councils;
- time frames for completing advice grant requests;
- communications issues between various parties in the Scheme (councils, science providers, FRST, Governance Committee)

- the Tools process;

These issues are now discussed briefly, in light of the stated objectives of the Scheme.

6.2.1 Financial limits on advice grants

Both regional councils and science providers agree that present limits on small and medium advice grants constrain their effectiveness, for reasons explained in section 5.4. The Envirolink Coordinator expressed the view that out of 75 small advice grants during the last twelve months, at least half needed more funding. Increasing individual grant fund allocations may improve effectiveness and levels of satisfaction for those grants that are funded. Unless such grant increases are accompanied by increased funding allocation to the Scheme as the whole, such a change is likely to increase competition for the finite pool of funds.

It must be remembered that one of the underlying principles of the Envirolink Scheme is to improve access to environmental science for small councils which are not well funded. It has already been observed that some of the smaller participating councils feel disenfranchised in the Tools process. It would be unfortunate if similar dynamics influenced the advice grant aspects of the Scheme which are working well.

The issue of access to post-graduate student research may be one avenue for addressing this tension. Conversely, a decision to allow limited elements of research activity for the purposes of customising research knowledge and tools to particular council circumstances, as has been suggested by both councils and science providers, would probably depend on increasing these limits. Similarly, if it is thought appropriate to introduce 'multi-council' or trans-boundary advice grants, this would also be dependent on increasing individual funding limits.

6.2.2 The exclusion of natural hazards

Both regional councils and science providers drew attention to the situation regarding science related to natural hazards. In light of the current high level of interest amongst regional councils across the country in natural hazards policy and strategy, and given that an important thrust of the Envirolink Scheme is to introduce a degree of end-user influence for a specific set of end users, it appears logical to formalise what is already happening in a de facto manner. This would allow more accurate topic coding and monitoring of the activities than occurs at the present time.

6.2.3 Opening the Scheme to other larger regional councils

Some science providers raised the issue of opening the Scheme up to the remaining regional councils. This does not appear to be a view shared by participating regional councils. It would be likely to pose a risk to the level of participation they currently have in the Scheme, if forced to compete in a larger pool of clients. There is already, in the Tools process, some concern expressed about disenfranchisement of the smaller councils. There is also evidence in terms of delays in completion, that science providers do not necessarily have much spare capacity to respond to a larger Scheme. Priority for Envirolink funding should be to address small councils' needs for effective engagement with the environmental science system, rather than science providers' needs. This is primarily a resourcing/capacity issue and it is the small regional

councils which are stretched for such resources and (prior to the Scheme) were generally missing out on effective knowledge transfer, not the science providers. The latter are already supposed to allocate financial resources from their public good science funding budgets for effective end-user engagement.

6.2.4 Time frames for completing advice grant requests

Both councils and science providers have presented explanations for why advice grant projects are sometimes delayed. The monitoring data suggests generally that timeliness in completing advice grants is not affecting council satisfaction with the outcome (there may be exceptions to this). Consequently, it is probably more of an administrative issue, requiring better protocols for notifying FRST funding managers ahead of time whenever delays are a prospect.

6.2.5 Communications issues between various parties in the Scheme

Several types of communication setting were described as problematic on occasions. For example, lack of appropriate feedback from the Governance Committee to those involved in making medium advice grant applications, or confusion between grant/tools applicants and FRST business managers over application criteria, particularly over the need for end-user justification and review of applications. In relation to Governance Committee feedback, the suggestion was made after the FRST consultation (see section 3.3.1) that Governance Committee meeting minutes should be made available to coordinators in councils and science providers in a timely manner[21]. With respect to confusion between applicants and FRST business managers, this issue was addressed in discussions between the Envirolink Coordinator and FRST business managers on 23 May this year, with a view to resolving misunderstandings. It was recommended that FRST business managers work with research providers to develop rigorous milestones for Tools proposals, bearing in mind that the question of relevance has already been established by the Tools committee earlier in the process (see further discussion below).

6.2.6 The Tools process

The Tools process has been dogged by confusion, perceived complexity and delays. There have been seven Tools proposals in the one round so far, but five or six of them did not gain final approval until March 2007. The Envirolink Coordinator expressed the view that the application form should be streamlined, the relevance section removed, and the focus shifted to a work plan and milestones; it should continue to be peer reviewed[22], and have a strict time frame. Another aspect of the Tools process to draw criticism is its relative inaccessibility to the very small councils whose priorities, it is claimed, have tended to be dominated and displaced by those of larger participating councils[23].

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[21] The Envirolink Coordinator has indicated (during an internal review of this report) that feedback notes from the Governance Committee are captured on the medium advice grant form, and we accept that this is an appropriate method for ensuring that feedback is provided to those who need it most.

[22] Although it was noted that in some instances, independent peer review is not without its own difficulties in science areas where most of the leading providers in a field of science are involved in a proposal.

[23] The Envirolink Coordinator has commented (during an internal review of this report) that, in his opinion, it is a misconception that only major councils are in a position to promote tools. He feels that most tools are promoted by special interest groups.

6.3 Overall conclusions

The small and medium advice grant aspects of the Scheme appear to be functioning well, and this is a consistent finding across all sources of data.

While this is a general finding which applies most of the time, it is also evident that there are some occasions when science advice projects do not meet council or science provider expectations in some respects. The data suggest that this is usually associated with issues such as exceptional delays in completion, inappropriate expectations and a lack of clarity by council staff, or poor communication of knowledge by science providers. These exceptional situations should be learnt from, and this learning is not necessarily happening at present. It may be worthwhile considering an internal review process[24] in cases where completed advice grant evaluations result in scores of 3 or less, and some reporting of such reviews to the Governance Committee as a means of providing some external accountability. But generally speaking, no radical surgery is required or would be appropriate for these aspects of the Scheme.

The Tools process has not functioned well. Again, this is a consistent finding across all sources of data. It has been slow to progress so far with few tools projects well advanced at this stage. Nevertheless, suggestions have been made that should improve this process for future rounds. This may require formally modifying and gazetting such changes to ensure that all parties are aware of the revised process.

The Governance Committee serves a useful and effective function in administering the Scheme and enabling collaboration between participating organisations. It may be worth considering changes to its composition and also to the manner in which its decisions are communicated to the applicants for medium advice grants and tools proposals.

The Envirolink Coordinator's role appears to function extremely well, to the evident satisfaction of all parties involved.

[24] i.e. internal to the parties involved in the advice grant.

Appendix 1: Three funding categories

Three types of funding are available:

Small advice grants (up to $5,000 per grant excluding GST) Regional Councils may obtain an expert consultation with a research organisation to help them identify their information needs, receive advice on science techniques or meet training requirements.

Medium advice grants (up to $20,000 per grant excluding GST) Regional councils may obtain from a research organisation, a detailed expert consultation for discrete projects, or for the second phase of an initial small grant project. The aim of this grant is to help council's apply existing knowledge held by scientists on regional environmental issues.

Tools development. Funding to develop or adapt new and/or existing resource management tools for use by more than one council. 'Envirolink's Tool' investment process is distinct from the 'advice grants' but can be considered linked, as the topic/issues are of a national scale as opposed to a single authority issue, which the advice grants seek to address.

- A prioritised list of tools that Regional Councils have collectively agreed on is submitted to the Foundation with the Governance Committee's approval
- The Foundation confirms eligibility of each project on the priority list according to the Envirolink criteria.
- The approved list is sent back to the Regional Councils and preparation of proposals may begin. A proposal should be submitted for each tool requested. Research organisations jointly develop the proposal with the Regional Councils.
- A contract is sent out to the research organisation once proposals have been assessed and approved by the Foundation. Projects may begin once a contract has been signed.
- The Foundation monitors project progress through regular reporting requirements, and payments are made on invoices. Final payment requires confirmation of contract delivery by Regional Councils.

Appendix 2: Original Envirolink Performance Measurement Framework, as prepared by MoRST

Envirolink Performance Measurement Framework for Trial Period

Outcomes	Objectives	Performance measures	Frequency	Data source
Increase the return on investment in environmental RS&T by facilitating its uptake by regional councils. Environmental management by regional councils is fully informed by RS&T.	Increase the engagement of regional councils with the environmental RS&T sector.	Number of advice grants sought by: 1. Size (small/medium) 2. Regional councils 3. Science provider 4. Science area (categorised from project description) 5. Environmental management issue (descriptive) 6. Ecosystem (categories: marine, terrestrial, freshwater, atmospheric) Number of tools sought by: 1. Regional council proposing tool 2. Science area (categorised from project description) 3. Environmental management issue (descriptive) 4. Ecosystem (marine, terrestrial, freshwater, atmospheric)	Ongoing during trial	Council application forms and invoices Tools proposals to FRST
		Number of new/enhanced relationships between pilot participants and researcher (informal/contract ($)/formal) Number of new/enhanced relationships between pilot participants in different councils Level of science training of staff in pilot organisation (c.f. with baseline at beginning of period – collected as soon as practical) Number of people and FTE participating in science work in pilot organisation: (c.f. with baseline at beginning of period) Perceived Council input into priority setting for FRST Environmental research programmes. Secondments of science provider staff into pilot councils for a period of time.	End of trial	MoRST survey/interviews

Outcomes	Objectives	Performance measures	Frequency	Data source
	Improve science input to the environmental management activities of regional councils.	Assessment of quality of advice received by regional council: 1. Overall satisfaction with advice? (high/med/low) 2. Was advice given in a timely manner? 3. Was advice easily understood? 4. Did advice demonstrate an understanding of regional council needs, e.g. did it provide concrete solutions? Assessment of quality of requests for advice by science provider (and coordinator). 1. Was request well framed? 2. Did the request demonstrate an understanding of how science can help solve environment management issues or were expectations unrealistic?	Ongoing during trial	Council application forms and invoices Provider invoicing info to FRST
		Number of advice responses and tools which contributed to following benefits by impact on organisation (none/low/med/high): 1. Increased environmental understanding by regional council of science issue 2. New or improved environmental management practice 3. New or improved environmental management tools 4. New or improved environmental policy decisions 5. New or improved environmental public services 6. Other (descriptive) Number of advice requests which lead to a request for a tool. Number of small advice grants which led to a medium size grant Short case studies of outliers –those interactions (both advice and tools) which resulted in high benefit and those resulting in none.	End of trial	MoRST survey/interviews

Outcomes	Objectives	Performance measures	Frequency	Data source
	Contribute to greater collective engagement between councils and the science system generally.	Number of requests for information about Envirolink to coordinator or via the website by non pilot participants: 1. Nature of request (descriptive) 2. Party requesting information	Ongoing during trial	Council application forms and invoices
		Attitudes of pilot participants (trial councils and research providers) on: 1. Level of understanding of science issues by RCs 2. Level of understanding of environmental management issues by science providers 3. Usefulness of scheme/any issues concerned with scheme Number of new linkages developed between pilot councils and non-pilot councils 1. By size of council 2. Geographic location Involvement of trial councils in environmental special interest groups across councils (c.f. baseline) Number of advice grants resulting in extra request for advice to research organisation, from non-pilot participant	End of trial	MoRST survey/interviews
	Appropriate process in place to meet the objectives of the scheme.	Timeliness of process: 1. time from receipt of advice request by coordinator to approval 2. time from receipt of tool request to approval 3. time from approval to provision of advice / tool	Ongoing during trial	Council application forms and invoices
		Assessment of overall process by regional council and science provider in terms of:	End of trial	MoRST survey/interviews

Outcomes	Objectives	Performance measures	Frequency	Data source
		1. Effort involved in putting together request 2. Communication with people providing advice 3. Availability of coordinator 4. Feedback/management by coordinator Assessment of process by coordinator: (to be clarified) 1. Formal comments by Trial Councils when asked by Coordinator for their response to individual projects 2. Feedback from Governance Committee on performance Assessment of tool process (to be decided).		

Appendix 3: Summary of comments on completed advice grant feedback forms

Analysis of comments in Council Feedback forms

Seventy-five out of 82 forms carried comments indicating levels of council satisfaction or dissatisfaction. Comments revealing council dissatisfaction were most likely to relate to communication difficulties with science providers (5), concerns over the resulting report format (3) or the advice only partially meeting expectations (3).

Analysis of comments showed that Councils use the advice in various ways. In half the cases the advice is used for one purpose, and in the rest the advice is used for two or more purposes. Examples of use include:

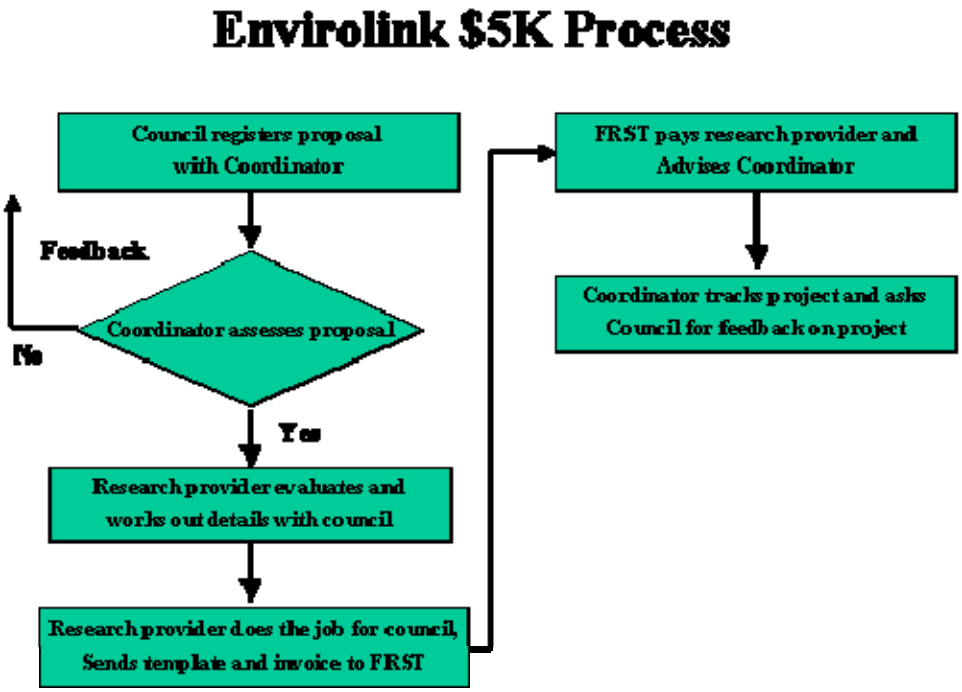
- development of strategy,
- input to technical/policy documents,
- assisting SoE monitoring and assessment,
- helping to identify problems and find a way forward,
- as a catalyst for facilitation/education between stakeholders,
- as a catalyst to promote research.

Analysis of comments in Science Provider forms

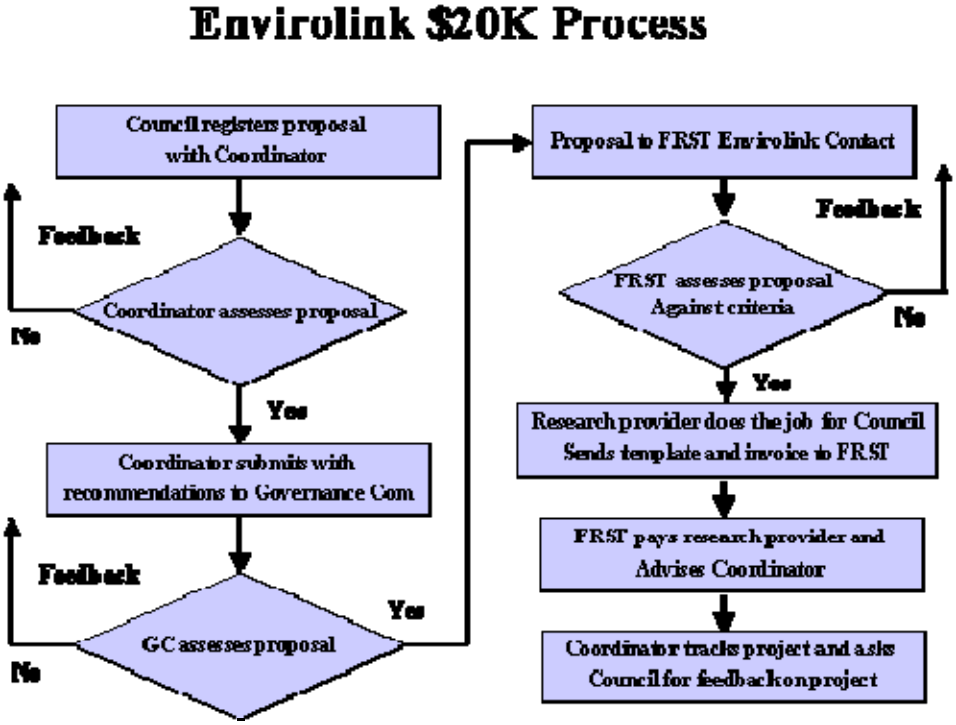
Additional comments made by Science Providers are less numerous - 38% of forms compared with 77% for Council feedback forms. In comparison with Council feedback comments, overall Science Provider feedback comments tend to be somewhat more favourable. Comments revealing Science Provider dissatisfaction with particular aspects, albeit at a low level (in 12% of feedback forms), were most likely to relate to unrealistic council expectations for budget (8), unrealistic council expectations for timeframe (2) and unclear council expectations (2).

Appendix 4: Flowcharts for advice grant approval processes - small and medium
Source: www.Envirolink.govt.nz

The small advice grants process is summarised in the following diagram:



The medium advice grants process is summarised in the following diagram:



Appendix 5: Questionnaire for regional council coordinators

Overview

θ *What are the main benefits resulting from Envirolink for your council?*

Relationships between councils and research organisations

(2a) Approximately how many relationships are you aware of between your council and science providers:

1	2	3-5	6-10	>10

*(2b) Rate the overall quality of these relationships **before** Envirolink started using the scale below:*

1 - Poor	2	3 **Satisfactory**	4	**5 Excellent**
The relationships are generally poor, with little understanding of each other's perspectives, goals and working cultures. Little or no benefit arising from the relationships.				The relationships are generally close and productive, with good understanding of each other's perspectives, goals and working cultures. Both parties regard the relationships as beneficial.

*(2c) Rate the overall quality of these relationships **now** using the scale below:*

1 Poor	2	3 **Satisfactory**	4	**5 Excellent**
The relationships are generally poor, with little understanding of each other's perspectives, goals and working cultures. Little or no benefit arising from the relationships.				The relationships are generally close and productive, with good understanding of each other's perspectives, goals and working cultures. Both parties regard the relationships as beneficial.

Relationships with other councils

*(3a) Rate the overall quality of your relationships with other councils involving environmental science or research matters **before** Envirolink started using the scale below:*

1 - Poor	2	3 **Satisfactory**	4	**5 Excellent**

The relationships are generally poor, with little understanding of each other's perspectives, goals and working cultures. Little or no benefit arising from the relationships.				The relationships are generally close and productive, with good understanding of each other's perspectives, goals and working cultures. Both parties regard the relationships as beneficial.

*(3b) Rate the overall quality of these relationships **now** using the scale below:*

1 Poor	2	3 **Satisfactory**	4	**5 Excellent**
The relationships are generally poor, with little understanding of each other's perspectives, goals and working cultures. Little or no benefit arising from the relationships.				The relationships are generally close and productive, with good understanding of each other's perspectives, goals and working cultures. Both parties regard the relationships as beneficial.

(3c) Have members of staff in your council developed any new relationships with staff in other councils as a result of Envirolink? Yes No

If yes, approximately how many relationships?

1	2	3-5	6-10	>10

People participating and training in environmental science work at councils

(4a) Approximately how many staff in the council currently take an active role in environmental science work within the organisation?

1	2	3-5	6-10	>10

(4b) Has there been a change in the number of staff similarly involved in environmental science work as a result of Envirolink? Yes No

If yes, approximately what change has there been in terms of numbers of people, since December 2005?

(4c) Have any staff similarly involved in environmental science work undertaken any form of science or technical training as a result of Envirolink? Yes No

If yes, what are the main kinds of training undertaken?

Council involvement in developing environmental science strategies

(5a) At the present time, has your council adopted an environmental science strategy? Yes No

(5b) If No (to 5a), is your council in the process of developing an environmental science strategy? Yes No

(5c) If Yes (to 5a or 5b), has Envirolink influenced the development of an environmental science strategy by your Council? Yes No

If 'Yes', please describe

(5d) Has your Council become more active in influencing science providers' environmental science strategies? For example, has your Council had input into the direction of environmental research programmes at science provider organisations? Yes No

If 'Yes', which science provider(s)?

If 'Yes', what are the main ways in which your council made an input?

Exchanges between councils and science organisations

(6a) Have researchers visited your council as part of the delivery of Envirolink advice grants?

If yes, approximately how many visits did you receive between Dec 2005 and March 2007 inclusive?

1	2	3-5	6-10	>10

(6b) Has your council hosted any science provider staff secondments as a result of Envirolink? Yes No

If 'Yes', how many staff and what is the typical duration ?

If 'No', why not?

Specific Benefits arising from advice responses

(7) By 31 March 2007, your council has been involved in 33 science advice grants through the Envirolink Scheme. Using the four-point scale (none/low/medium/high), please score the overall Envirolink-based advice on its effectiveness in contributing to the following benefits -

(a) Increased environmental understanding by regional council staff of science issues?

None Low Medium High

(b) New or improved environmental management practices or tools in the region?

None Low Medium High

(d) New or improved environmental policy decisions by the Council?

None Low Medium High

(e) Informing councils stakeholders/public

None Low Medium High

Appropriate scope and process

What issues would you like to bring to our attention that you believe are limiting the effectiveness of the Envirolink Scheme as it currently operates? Can you suggest remedies for these issues and what other positive suggestions would you make to improve the effectiveness of the Scheme?

(8a) Scope.

This may include:

- ∀ *Small/medium advice grant cut-off levels*
- ∀ *Broadening the scheme to include hazards or social issues*
- ∀ *Allowing small new research projects to support or apply existing knowledge*

Issues	*Suggested remedies*

(8b) Process.

This may include:

- ∀ *General process for advice grants and tools*
- ∀ *Effort involved in putting together requests*
- ∀ *FRST's role*
- ∀ *Envirolink Coordinator*

Issues	*Suggested remedies*

Any other comments?

Appendix 6: Questionnaire for Science Provider coordinators

Overview

(1) What are the main benefits resulting from Envirolink for your organisation?

Relationships between environmental researchers and councils

(2a) Rate the level of interaction between your organisation and councils, using the scale below:

1 - Low	2	3	4	**5 High**
One or two infrequent interactions between individuals.		A small number of strong relationships, or several teams with occasional interactions		Most environmental research teams have at least one relationship

*(2b) Rate the overall quality of these relationships **before** Envirolink started, using the scale below:*

1 - Poor	2	3 **Satisfactory**	4	**5 Excellent**
The relationships are generally poor, with little understanding of each other's perspectives, goals and working cultures. Little or no benefit arising from the relationships.				The relationships are generally close and productive, with good understanding of each other's perspectives, goals and working cultures. Both parties regard the relationships as beneficial.

*2c) Rate the overall quality of these relationships **now,** using the scale below:*

1 Poor	2	3 **Satisfactory**	4	**5 Excellent**
The relationships are generally poor, with little understanding of each other's perspectives, goals and working cultures. Little or no benefit arising from the relationships.				The relationships are generally close and productive, with good understanding of each other's perspectives, goals and working cultures. Both parties regard the relationships as beneficial.

Council involvement in developing environmental science strategies

(3a) Have any regional councils had any type of input into research programmes at your science organisation as a result of Envirolink?
(e.g. include research collaboration, direction setting, governance. Exclude any Envirolink activities).

Yes No

(3b) If 'Yes', what are the main ways in which councils had input?

Exchanges between science organisations and councils

By 31 March 2007, your organisationl has been involved in 86 science advice grants through the Envirolink Scheme

(4a) Have researchers from your organisation visited a council as part of the delivery of Envirolink advice grants? Yes No

If yes, approximately what proportion of grants involved visits?

<20%		20-50%		>50%

'rarely' 'sometimes' 'mostly'

(4b) Have any staff from your organisation been seconded to any participating council since Dec 2005?

If 'Yes', how many staff?

For what duration?

To which participating Council(s)?

If 'No', why not?

Appropriate process in place to meet the objectives of the scheme

What issues would you like to bring to our attention that you believe are limiting the effectiveness of the Envirolink Scheme as it currently operates? Can you suggest remedies for these issues and what other positive suggestions would you make to improve the effectiveness of the Scheme?

(5a) Scope.

This may include:

- θ *Small/medium advice grant cut-off levels*
- θ *Broadening the scheme to include hazards or social issues*
- θ *Allowing small new research projects to support or apply existing knowledge*

Issues	*Suggested remedies*

(5b) Process.

This may include:

- θ *General process for advice grants and tools*
- θ *Effort involved in putting together requests*
- θ *FRST's role*
- θ *Envirolink Coordinator*

Issues	*Suggested remedies*

Any other comments?

Appendix 7: List of Envirolink coordinators interviewed or surveyed by Taylor Baines & Associates

Name	*Organisation*
Dr Stephanie Parkyn	NIWA
Grant Douglas	Ag Research
Cynthia Cripps	Landcare
Marianne Davidson	Lincoln University
Danette Olsen	Cawthron Institute
Jon Roygard	Horizons Regional Council
Warren Tuckey	Environment Southland
Hans van Kregten	Gisborne District Council
Graham Sevicke-Jones	Hawkes Bay Regional Council
Pere Hawes	Marlborough District Council
Paul Sheldon	Nelson City Council
Tony Phipps	Northland Regional Council
Rob Smith	Tasman District Council
Chis Ingle	West Coast Regional Council

Grant Douglas and Warren Tuckey were not interviewed directly; they emailed the completed questionnaire. Dr Stephanie Parkyn was interviewed and also sent a completed questionnaire. All 12 interviews were by phone. A 100% response rate of the 14 people contacted over the period 29 May to 18 June 2007 (3 weeks).

The Envirolink Coordinator Bill Dyck was interviewed by phone.