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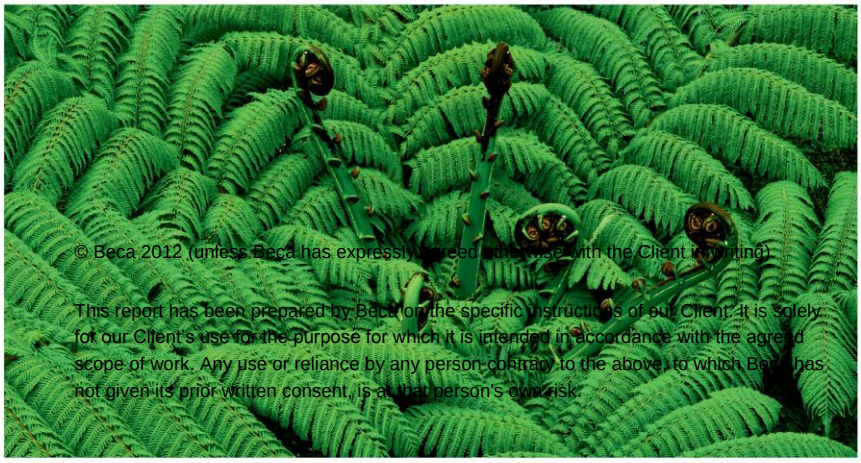
Final Report

Stock Take of RMA Monitoring Across Selected Agencies

Prepared for the Ministry for the Environment

By Beca Carter Hollings & Ferner Ltd (Beca)

21 May 2012



Revision History

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A	Phil Gurnsey	Draft report prepared for MfE	20/04/12
B	Phil Gurnsey	Draft amended on MfE comment	01/05/12
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Document Acceptance

Action	Name	Signed	Date
Prepared by	Phil Gurnsey		21/05/12
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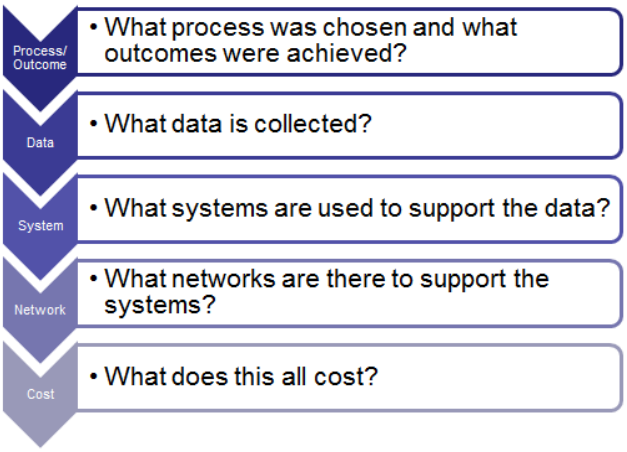
Approved by	Graham Spargo		21/05/12
on behalf of	Beca Carter Hollings & Ferner Ltd		

Table of Contents

1 Executive Summary

This study fits within the Ministry for the Environment's Monitoring and Review Project – Towards an integrated monitoring framework for the Resource Management Act 1991 (the RMA).

The purpose of the stock take of RMA monitoring is to identify and catalogue the data collection processes and systems currently used by local and central government for monitoring the RMA. We sought to identify the following:



We looked at the following monitoring processes and functions in relation to these areas of investigation:

- Functions monitoring
- Resource consents / designations monitoring
- Plan / policy statement (including change or variation) monitoring
- Compliance / enforcement monitoring
- SOE monitoring

The Needs Analysis for RMA Monitoring (summary attached as Appendix 1) informed the development of our stock take survey.

The project involved surveying 15 local authorities and 11 Government agencies, identified by the Ministry for the Environment (and who are part of the Monitoring and Review Project). We focus on common themes, challenges and opportunities for improving RMA monitoring.

We have produced a MS Access data-base for the stock take separate to this report. This database is the crucial element of this study and our findings are drawn on the information provided by local authorities and Government agencies.

Ministry for the Environment findings

The stock take of the Ministry for the Environment monitoring work confirms that it uses a number of tools to monitor the implementation and effectiveness of the RMA, primarily being the RMA Survey of Local Authorities, the National SOE monitoring data and other research and data collection such as the use of prosecutions under the RMA. However, the current approach has not been informed by a comprehensive framework which coordinates and consolidates the full range of monitoring

needs for the RMA. The lack of framework has led to some duplicated efforts, e.g. in tracking plan change processes or enforcement actions separately from the RMA Survey of Local Authorities.

The SOE programme of the Ministry is very comprehensive and relies on partnerships for the collection and sharing of environmental data. However, there are significant difficulties in getting consistent reporting to inform the 22 environment indicators developed as part of the programme.

The RMA Survey of Local Authorities has a long history of evolution dating back to 1996. It is seen as the primary means of highlighting the trends in implementation of the RMA, as well as areas where performance by local authorities may require greater attention.

Central Government agencies findings

As identified by the Needs Analysis, only the Environmental Protection Authority, the Department of Conservation and the Ministry for the Environment have monitoring functions under the RMA. The Ministry of Justice and the Ministry for Primary Industries have monitoring data and systems of significant relevance too. The Ministry of Justice acts in a supporting role for the Environment Court, while the Ministry of Primary Industries is responsible for monitoring the Dairying and Clean Streams Accord.

There are no commonalities in relation to systems for any of the central government agencies despite the government's Open Government Information and Data Re-use Work Programme. There are however commonalities and networks for sharing the data across SOE programmes. The SOE material is nationally accumulated and then shared publicly as summary data sets. More however could be done to share publicly the raw data sets themselves. More common methods of reporting are via indicator reports such as those carried out by Statistics NZ (sustainability reporting), the Ministry of Environment (as noted above in 22 environmental indicators) or the Ministry of Economic Development (energy data).

Local authorities' findings

Our sample size means we were unable to draw conclusive statements about types of councils undertaking actions. However, our findings are that there is a positive correlation between the size of the council and the monitoring undertaken. Smaller territorial authorities tended to undertake little SOE monitoring, compliance monitoring was on a pressure needs basis and resource consent monitoring was done to meet the requirements of the Ministry for the Environment's RMA Survey of Local Authorities. Regional councils tended to undertake comprehensive monitoring programmes.

No council undertook monitoring of functions (ss 34 and 34A of the RMA).

For the majority of councils the level of strategising undertaken regarding RMA monitoring was limited to the Long Term Planning processes under the Local Government Act 2002, or within the mandatory requirements of the district and regional plan (an option inclusion from ss 67(2)(e) and 75(2)(e) of the RMA.

For larger councils (who were perhaps better resourced) more comprehensive frameworks served the purposes of:

- providing a framework and processes for detailed monitoring programmes in order to achieve integration and co-ordination across the councils
- identifying broad information requirements to address each important resource management issue
- specifying key information and defining monitoring programmes for each of the main resource management issues

- providing a rationale for assigning priorities to various monitoring programmes.
- determining potential for rationalising within monitoring programmes in order to ensure only relevant data is collected in a cost-effective system
- providing guidance for reporting to the public
- helping avoid unnecessary duplication of monitoring effort

Data collected tended to be greater within regional councils, relating to pressure, state or response monitoring of natural environment (such as irrigation restrictions river flows, rainfall, swimming water quality, groundwater allocation, groundwater levels, coastal monitoring, wave buoys and air pollution).

The balance of data collection of national versus local needs is in favour of delivery of data for local needs. The exception being the RMA Survey of Local Authorities which has determined data requirements for consent processes – although this in part is driven by the requirements of the consent processing under the RMA. For small councils consent process monitoring is a major part of their monitoring effort.

Systems were also more extensive in regional councils and in many cases strategies and frameworks had been developed to guide actions. Indicators however varied depending on the regional nature of issues.

Further focus needs to be given to developing the data councils gather into useful information. On the whole councils collect and store data about water, air, land, the coastal environment, and so on. However, what data is collected, where it is collected from, and how the collected data is managed has largely been the decision of the primary collector. This is a reflection of a lack of monitoring strategies that stretch across the functions and roles of a council. Few councils appeared to have made a conscious decision on the breadth of the indicators they would collect information about and why.

Systems used to store and manage data varied widely across councils. A system called ‘Tech 1’ was popular with territorial authorities surveyed. Some regional councils (Northland Regional Council, Waikato Regional Council, Horizons Regional Council, Taranaki Regional Council, West Coast Regional Council, and Environment Southland) were moving to a new system called IRIS – Integrated Regional Information System – but it had yet to be deployed. With exception of SOE council functions, almost no data sharing agreements exist and only a few councils share data through mutually compatible databases (Hilltop, NCS, IRIS and Tech1). There is potential for more sharing to occur with the development of the IRIS system and the Land and Water NZ website. The need for a database that is universally compatible that pulls together data from numerous councils is mentioned repeatedly throughout the stock take.

With the exception of the IRIS initiative, consent compliance monitoring data is stored separately to pollution incident data, and both are stored separately to ambient environmental monitoring data. Because of this, much data is not being used to its full potential.

The costs of monitoring by councils are relatively unknown. No clear delineation of the costs was recorded by councils in a manner which would enable us to assess the costs of monitoring the environment in New Zealand. Monitoring as such was not identified by many as an independent activity as opposed to other operations.

There is a clear divide between the monitoring effort of small and large councils (reflecting budgetary resources available), and between small territorial authorities and regional councils (reflecting “pressure state response” monitoring requirements to understand the complexities of natural processes and resources). Our investigation included only two unitary authorities and we cannot make clear conclusions about the differences between unitary and non-unitary councils.

2 Introduction

2.1 Background to the project

The Ministry for the Environment is currently undertaking a Monitoring and Review Project: *Towards an integrated monitoring framework for the RMA*.

The purpose of the Monitoring and Review Project is to establish a national monitoring framework to coordinate and manage the collection and sharing of nationally consistent and comparable information on the implementation and effectiveness of the RMA and its tools.

This study identifies and catalogues the data collection processes and systems currently used by local and central government for monitoring the RMA by looking at 15 local authorities and 11 central government agencies, including the Ministry for the Environment.

2.2 Objectives of the Monitoring and Review Project

The objectives of the Monitoring and Review Project are to:

- develop a clear and transparent national monitoring framework
  - provide robust information on the implementation of the RMA
  - provide information on the performance of tools (national policy statements), functions (plan making) and processes (issuing resource consents) under the RMA
  - improve the availability, consistency and comparability of RMA information
- streamline the collection of information to achieve efficiencies
- provide information to produce a coherent picture of the RMA's overall outcomes

The project is divided into three stages:

This report forms part of the Stage One - scoping of the project, which involves four studies:

- Needs analysis: This will identify all the functions, tools and processes that could be nationally monitored across the RMA
- Case studies: This will identify and learn from the development and operation of national monitoring frameworks from New Zealand and abroad
- Stock take: This will identify and catalogue the data collection processes and systems currently used by local and central government for monitoring the RMA
- Gap Analysis: This will draw the previous three studies (above) to highlight the current state of RMA monitoring. From this, any gaps or opportunities can be identified and used to inform the next stage, Stage Two – development of a national monitoring framework.

3 Methodology

The following outlines our methodology in preparing the stock take of RMA monitoring.

We sought comment on the approach in this methodology at meetings on 5th and 6th March with the Ministry for the Environment's Monitoring and Review Steering Group, Council Technical Working Group, and Government Department Group. This methodology was confirmed by these groups and approved by the Ministry for the Environment as appropriate on March 9th, 2012. The Ministry for the Environment also subsequently approved our survey questions.

3.1 The context for monitoring

The OCED defines environmental monitoring as:

> *the continuous or frequent standardized measurement and observation of the environment (air, water, land/soil, biota), often used for warning and control.*[1]

Monitoring is about checking we are achieving what we want to achieve and helps us manage our environment. This is both about process and outcomes. It informs decision-makers of the consequences of actions and changes in the environment. It is an on-going and systematic process which aids decision-making by closing the loop in the planning cycle.

Monitoring can tell us about key pressures on the environment, the condition or state of the environment, and about responses (ie, the environmental results) that we are achieving, or need to work towards (as in the framework model for core national environmental indicators).

The Ministry for the Environment, the Department of Conservation, the Environmental Protection Authority and councils have a responsibility to monitor the implementation and effectiveness of the RMA, as identified in the Needs Analysis prepared by GHD Ltd for the Monitoring and Reporting Project. In general monitoring involves the elements depicted below:

[1] http://stats.oecd.org/glossary/detail.asp?ID=1684

Other government agencies also undertake monitoring. Some of that monitoring is undertaken to meet the functions of the RMA. For others, monitoring is undertaken because of sectorial interests. However, we only looked at where monitoring was undertaken because it was required by the RMA or was needed to understand aspects of the RMA's implementation.

We did not look at one off studies, as they did not fit with our definition of monitoring being a continuous action. Such studies might include specific investigation in the functioning of an element of the RMA (such as investigation into filing fees in the Environment Court or a stock take of regional coastal plan implementation of the New Zealand Coastal Policy Statement).

The Needs Analysis Report helped inform the extent of monitoring Beca should investigate as part of this stock take. We have summarised the findings of the Needs Analysis Report in Appendix 1.

From the Needs Analysis we identified the following processes or functions we would look at across the organisations:

- Functions monitoring – for councils these relate to the transfer of powers and functions under section 33 and 34 of the RMA
- Resource consents / designations monitoring – this typically covers the numbers and types of resource consent / notice of requirement applications processed, and the time taken to process them
- Plan / policy statement (including change or variation) monitoring – to meet the requirements of section 35 and 35A of the RMA
- Compliance / enforcement monitoring – this relates to resource consents monitoring and compliance issues for permitted activities
- SOE monitoring – gives an overview of the state of our environment, the pressures on it, and our responses to any changes in its state.

The Needs Analysis also identified for us the type of monitoring activities that may be undertaken (e.g. quantitative survey, record keeping and feedback).

In order to better understand the nature of current RMA monitoring across these processes and functions we, in consultation with the Ministry for the Environment, identified five areas of investigation under these monitoring areas:

- What process was chosen and what outcome was achieved?
- What data is collected?
- What systems are used to support the data?
- What networks are there to support the systems?
- What does this all cost?

3.2 Overview – meeting the challenge

Our methodology provided for a review of local authorities, the Ministry for the Environment and other relevant government agency activities to gain a 'complete' inventory of monitoring data routinely collected by a particular agency as part of its RMA monitoring functions. The following diagram summarises our approach:

Our approach included:

- a review of all web-based material
- phone interviews with relevant staff of identified local authorities and government departments
- emailing the survey questions to all participants
- visits to Horizons Regional Council, Wellington City Council, New Plymouth District Council, and Waikato Regional Council
- meetings with the Ministry for the Environment, Department of Conservation, Department of Building and Housing, and the Environmental Protection Authority
- interviews and meetings captured information using a standard template

3.3 A representative information set

Our terms of reference had us working with councils and government departments who form a part of the Ministry for the Environment's Monitoring and Review Project including – the Steering Group, Council Technical Working Group, and Government Department Group. The stock take only captured information relating to RMA monitoring from these agencies. As describe monitoring was regarded a continuous and routine process.

3.3.1 Local government information capture

Councils involved in the stock take from the Monitoring and Review Steering Group and Council Technical Working Group are:

- Auckland Council
- Waikato Regional Council
- Environment Bay of Plenty
- Hawke's Bay Regional Council
- New Plymouth District Council
- Horizons Regional Council
- Rangitikei District Council
- Porirua City Council
- Greater Wellington Regional Council
- Wellington City Council
- Tasman District Council
- Grey District Council
- Environment Canterbury
- Waitaki District Council
- Southland District Council

3.3.2 Central government information capture

Government departments, agencies and Crown entities who currently make up the membership of the Monitoring and Review Project Government Department Group are:

- Ministry for the Environment
- Department of Conservation
- Land Information New Zealand
- Te Puni Kōkiri
- Ministry for Primary Industries
- Ministry of Economic Development
- Department of Internal Affairs – in relation to local government
- Department of Building and Housing
- Ministry of Justice – in relation to the Environment Court
- Environmental Protection Authority
- Statistics New Zealand

3.4 Research questions

The study involved quantitative research with project partners. We posed the research questions under the areas identified from the needs analysis. They were as follows:

Process/Outcome

1. Do you have a strategy/framework to monitor all/some components under this function? If so in what form is it?
2. Does the strategy/framework identify outcomes and/or indicators, if so what?
3. If you have no strategy/framework how was it decided to collect the data?
4. How did you select indicators/measures for the issues? What, if any, framework, logic and criteria did you use? Were they specified by someone else?
5. What mechanisms do you use to provide feedback between monitoring and decision-making?
6. What are your timeframes for implementing and reviewing your monitoring strategy or approach?
7. Are there any proposals to change what you do?
8. Is there any indications that identified anticipated outcomes are being achieved?

Data

9. What data is collected (both quantitative and qualitative)?
10. Who collects data?
11. Where does the data come from? Is it primary or secondary data?
12. What processes are used to capture data (e.g. process input (i.e. consents), survey, periodic/regular research, evaluation, data requests, monitoring)?
13. Is there any standard/s to which the data is collected? (e.g. ISO, NZS, developed by the council)
14. What is the frequency of the dataset or survey? (e.g. quarterly, monthly, annual)
15. How long has the data or survey existed? (e.g. start and/or end date)
16. Are there any known weaknesses or dependencies in the data?

System

17. Who holds the data collected?
18. What are the systems, infrastructure and processes used to manage the data? How is it retrieved?
19. How is the data used?
20. What analysis is done of the data?
21. What reporting is undertaken (type, style, format, frequency)?
22. Strengths and weaknesses of systems?

Network

23. Is the data and/or reporting freely available? If yes, how?
24. Is the data and/or reporting shared and with who? If so what? How? How often?
25. Are there any access agreements for data sharing? Do you have a database which is compatible with another utilised by an alternative agency?
26. Are there agreed governance arrangements for managing the data or reporting? (eg. with councils, with iwi, industry, Government)

Cost

27. What are the approximate or known costs of data collection, holding, managing, manipulating, reporting and sharing? (e.g. in annual reports or for specific projects)

3.5 Information gathering

Beca developed a MS Access database as a guide to review the various monitoring initiatives based on the research questions. This data table ensured that the information was gathered in a thorough and consistent manner. The template and data collected was organised around the research questions and informed from work undertaken in the Needs Analysis report.

Where requested, once survey information was gained we returned it to participants for verification.

3.6 Peer review

We submitted a draft report to the Ministry for the Environment outlining our assessment. This report was sent to all those surveyed, as well as Local Government New Zealand. Feedback was incorporated in this final report.

3.7 Limitation of the results

Our style of approach with the council's and government agencies differed depending on how they chose to complete the survey. For some councils this involved providing us written answers, for others it was an onsite or telephone interview.

The survey also occurred at a time when councils were heavily involved in Long Term Planning exercises and as such, the ability for councils to commit time to the survey was hampered.

All agencies participated in the survey. However at the time this report was completed we had not received complete responses our survey for information from two councils (Tasman District Council in relation to resource consent and Environment Canterbury were still working on their responses). We do not consider this lack of information has a significant impact on our overall conclusions, but limits the examples we have been able to provide as evidence.

3.8 The data-base

The MS Access data-base containing the results of our survey is a significant deliverable from this study.

Data entered into the data-base was done in a consistent manner. Our Beca team worked closely to clarify our interpretation of questions from agencies and councils. One person was responsible for all government agency responses.

We have designed the data-base so it can operate as a living document for the Ministry for the Environment that they can extend or manipulate to run all manner of queries or store additional information. It could also be extended to add other councils or government agencies.

The findings we present here are therefore supported by more in depth information in the database.

4 Findings – overview by agency

4.1 Ministry for the Environment

Not unexpectedly, the amount of monitoring undertaken by the Ministry for the Environment is quite extensive. Two data sheets have been produced for the Ministry for the Environment. One covers SOE monitoring and the other relates to all other RMA functions as follows:

- Log of RMA related correspondence.
- Log of RMA Info requests from 0800 RMA INFO (0800 762 4636) or from rmainfo@mfe.govt.nz.
- Timeframes for processing requiring authority applications.
- The RMA Survey of Local Authorities[2].
- A Monitoring and Evaluation Plan is currently in development for the National Policy Statement for Electricity Transmission.
- Environmental legal assistance fund monitoring.
- Treaty Settlement monitoring by Kahui Taiao, in relationship agreements and environment accords with iwi.
- Appeals and filing fee monitoring since the increase in the filing fee in May 2009 as part of the Government's response to Regulations Review Committee.
- A study carried out twice into the use of prosecutions under the RMA.
- A complaints database.
- Impact, measures and targets linked to the Ministry's Outcomes framework (see Figure 1).

We note that as part of the development of national instruments under the RMA, the Ministry is developing monitoring and evaluation plans. This is an emerging practice which will help meet the wider monitoring needs of implementing National Policy Statements and National Environmental Standards. There are likely to be further data needs around monitoring national instruments that will not be met by existing monitoring mechanisms such as the RMA Survey of Local Authorities.

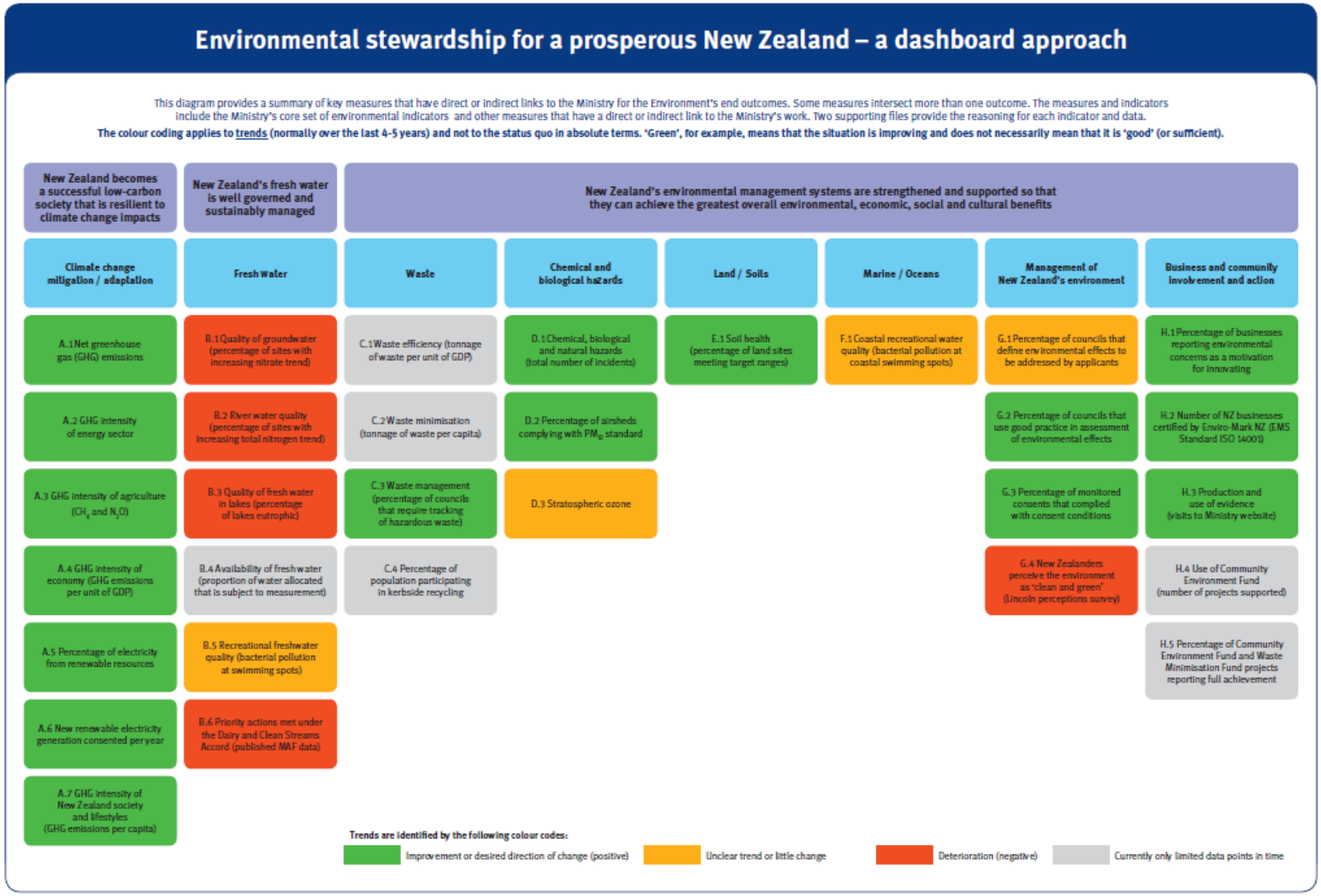
The Ministry did not identify any information contained as projects undertaken under the Community Environment Fund (or what used to be the Sustainable Management Fund). Although there is potential for there to be information, the effort to extract that information may not be significantly beneficial. We note however, that environmental legal assistance fund recipients are required (as an obligation in the Deed of Funding) to provide interim reports each year to update on progress of the proceedings, and a final report following a decision of the court. Monitoring of the environmental legal assistance forms part of the wider evaluation/monitoring framework currently being developed by the Ministry's Funds Team. As such we should expect to see more information derived from this area of work in the future.

There is no overall coordination, as yet, of the monitoring effort (hence the instigation of the Monitoring and Review Project).

Information is stored by the Ministry for the Environment on a variety of MS Excel and MS Access data-bases. There is little in the way of information about the costs of monitoring undertaken by the Ministry.

[2] http://www.mfe.govt.nz/publications/rma/annual-survey/index.html

Figure 1: Dashboard from the Ministry for the Environment's Statement of Intent 2011/12



The monitoring undertaken by the Ministry for the Environment was well aligned with the recommendations of the Needs Analysis. We identified only a couple of areas where monitoring was not being undertaken. For example:

- undertaking qualitative assessment of the use of economic instruments in district and regional plans
- records and assessments of joint management agreements
- assessment of water conservation orders

In our view these tend to lend themselves to more of an evaluative task rather than a monitoring exercise, as their use is minimal and their performance contextual.

We also consider there were problems with the inability of some data sets to be meaningfully used in different contexts or broken down for better understanding. Data was often looked after a single team and not known to be available outside individuals or teams who had created it.

The majority of the monitoring undertaken by the Ministry is inwardly serving and focused. There are two clear outwardly focused activities; SOE monitoring and the RMA Survey of Local Authorities. We discuss these below in detail.

4.1.1 SOE Monitoring

SOE monitoring undertaken by the Ministry for the Environment in relation to its RMA functions covers indicators in the following areas:

- Air Quality (PM_{10})
- Freshwater demand
- Lake water quality
- River water quality
- Groundwater quality
- Coastal recreation fresh water
- Freshwater recreation water quality
- Marine protected areas
- Erosion risk
- Land use
- Soil health

This is a narrow subset of the Ministry's national-scale environmental reporting involving:

- A core set of 22 national environmental indicators (listed in Table 1).
- A five yearly national-scale state of environment report – Environment New Zealand 2007 being the last.
- A national environmental reporting programme that produces a series of update reports, known as national environmental report cards on the ten domains listed in Table 1. There are two types of environmental report cards: 'snapshot' report cards and comprehensive report cards.
- Surveys and undertakes its own monitoring, when other data sources are not available.

New Zealand's first SOE report was published by the Ministry in 1997 and the second SOE report in December 2007. After Cabinet direction, the Ministry established its environmental statistics programme in 2008.

National SOE reporting in New Zealand is very comprehensive. However, it relies on partnerships for the collection and sharing of environmental data. Data for the core set of national environmental indicators is collected by central and local government agencies, non-government organisations, and Crown Research Institutes. The Ministry's programme builds on this existing monitoring.

The environmental reporting framework and indicators developed by the Ministry for the Environment act as a coordinator within the regional environmental reporting framework. The

Table 1: National environmental indicators

Domain	Indicator
Air	Air quality
Atmosphere	Greenhouse gases
	Stratospheric ozone
Biodiversity	Native land cover
	Indicator species
Consumption	Household consumption expenditure
Energy	Energy supply
	Energy demand
Fresh water	River water quality
	Lake water quality
	Groundwater quality
	Recreational water quality
	Freshwater demand
Land	Land cover
	Land use
	Soil health
	Erosion risk
Oceans	Marine areas with legal protection
	Fishing activity
	Recreational water quality
Transport	Vehicle-kilometres travelled (VKT) by road
Waste	Solid waste disposal

Ministry develops tools and guidelines to encourage consistency. Getting consistency will be an on-going challenge and work happening under the National Environmental Monitoring and Reporting (NEMAR) Committee and the National Standards Environmental Monitoring (NEMS) Committee between the Ministry and regional councils can only but seek to improve collection and reporting of data in relation to water and hydrological monitoring.

We summarise the issue associated with data and systems captured in questions 16 and 22 of the survey in Table 2. Ultimately this means the Ministry needs to provide guidance on what data requirements are, but remain open to having regional councils interpret them to their own needs.

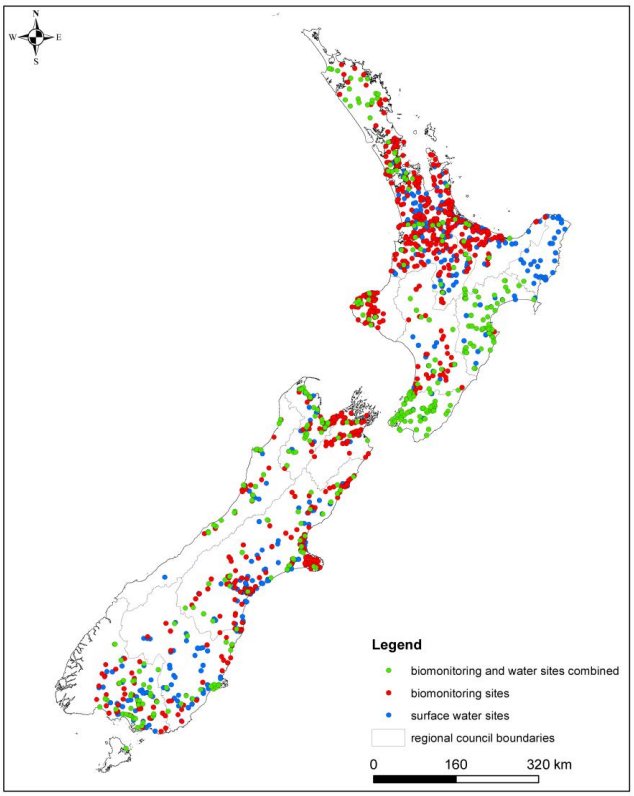
Further information on all indicators is available on the Ministry's environmental reporting web pages and in the Ministry's 2009 publication "Reporting on New Zealand's Environment: How the national environmental reporting programme works". Information on indicators is also reported in the Ministry's annual statement of intent document. We have repeated this in Figure 1 as an example of concise reporting.

Table 2: Strengths and weakness of data and systems in SOE monitoring against indicator

Indicator	Strengthens	Weakness
Air Quality (PM_{10})	■ Current level of reporting the information requests are promptly responded to by councils and in the requested manner	■ Site locations vary among regions - i.e., some use sites representative of the airshed/population and others monitor at the worst sites ■ Some councils use different instruments. Calibration of equipment protocols vary amongst councils, as do auditing of equipment and monitoring protocols - overall resulting in potential inconsistencies between results ■ Raw data not held and more comprehensive analysis could be conducted ■ Summary only
Freshwater Demand	■ Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 is designed to achieve better information.	■ Aggregating to a national level has many issues ■ Councils databases vary widely and are not standardised in terms of definitions, units, identification of primary data fields ■ Lack of data integrity is an issue in many regional databases ■ Permission every time re-use the data
River and Lake Water Quality	■ The NEMAR project aims to improve the consistency of freshwater monitoring and reporting	■ Differences in monitoring across regions causes many issues when aggregating nationally
Groundwater Quality	■ The national protocols mean that this dataset is quite robust	■ Regional differences exist in monitoring which can cause some weaknesses in the data
Coastal and Freshwater Recreation Water Quality	■ Suitability for recreation grades were robustly designed using statistical and epidemiological studies ■ Guidelines widely known about	■ Differences in interpretations in guidelines ■ Tension between collecting info for public health purpose but perception that the reporting is about environmental condition
Erosion Risk	■ Not identified	■ Definition of susceptible land is weak and dependent on LCDB updates.
Land Use	■ Robust international system	■ Land use classes don't fully meet domestic needs ■ Poor domestic picture of land use information
Soil Health	■ Data collected using guidelines written by the regional councils ■ Data robustly collected and consistent	■ There are questions around some of the target ranges which are currently being discussed ■ Not all councils collect data and some land use/soil type combinations are not sufficiently sampled

Looking further at just one of these indicators we see significant regional variability in hydrological monitoring. It is done for varying objectives and therefore to varying standards using varying technologies (sensors, telemetry, etc.). It is variable in space, varying densities, e.g. Auckland very well sampled whereas Alpine areas (where most of water / energy is coming from) under sampled. It is also done by a variety of stakeholders – regional councils, energy companies, NIWA.

Figure 2: New Zealand Hydrological monitoring variation



4.1.2 Proposed Environmental Reporting Bill

In August 2011 the Government released a discussion document outlining a new Environmental Reporting Bill. The proposal involves making the Parliamentary Commissioner for the Environment responsible for independently reporting on the state of the environment every five years.

Further information is available on the Ministry's website at www.mfe.govt.nz/environmental-reporting/about/index.html.

The quality of the information is of a high standard in relation to SOE monitoring. However, as is identified in the discussion document "Measuring up":

There is currently no specific compulsion on local authorities to supply standardised data to a national environmental statistics programme. For example, current legislation does not require local authorities to all monitor the same aspects of the environment in a consistent way. This makes it difficult to produce a satisfactory national picture of environmental quality.

4.1.3 RMA Survey of Local Authorities

The Ministry for the Environment's RMA Survey of Local Authorities helps the Minister for the Environment monitor how the RMA is being put into practice. This includes reviewing local authority implementation of the RMA and recommended good practices. The survey also aims to:

- Highlight trends over time in the RMA's implementation
- Provide information to promote benchmarking, good practice and ways to improve local authorities' performance.

- Enable each local authority to compare its performance with others and stimulate discussion about variations between similar local authorities.
- Provide local authorities with information so they can more accurately respond to enquiries about RMA processes.

The Ministry notes that:

> *the survey does not measure the performance of the RMA in delivering better environmental outcomes. Nor does it measure how well individual local authorities deliver these outcomes: this occurs through state of the environment monitoring and reporting at both the national and local level.*

The Ministry for the Environment has been surveying all New Zealand local authorities (regional, territorial and unitary) about their implementation of the RMA since 1996. The 2010/11 Report is tenth in the series and covers activity from 1 July 2010 to 30 June 2011. It compares findings from this period to past surveys to highlight any long-term trends.

The results of auditing of the RMA Survey of Local Authorities by the Ministry for the Environment highlight good practice and opportunities for improvement in councils' data management systems. It suggests greater use could be made of the information collected from the survey. Current reporting only extracts what was previously reported but more analysis can be made with the data.

One interesting finding in 2010/11 RMA Survey of Local Authorities Report relevant to this stock take is percentages of local authorities monitoring and reporting on their responsibilities. We have repeated this below in Table 3.

Some observations about each monitoring responsibility can be made:

- SOE monitoring and reporting - Local authorities were asked to report on whether they had monitored and reported on the state of the environment in their district or region. Overall it appears that SOE reporting is stronger in regional councils than unitary authorities than in territorial authorities. This observation is confirmed in our study.
- Plan effectiveness monitoring - Local authorities were asked to report on whether they had monitored the efficiency and effectiveness of policies, rules or other methods in their policy statements or plans. The degree of plan effectiveness monitoring undertaken appears consistent with the finding in our study
- Functions monitoring - Local authorities were asked to report on whether they had monitored and reported on the functions that may have been delegated or transferred – as we will identify this result is at odds with the finding in our stock take where functions were not monitored.
- Compliance monitoring – Local authorities were asked if they monitored, and subsequently reported on, the exercise of resource consents and permitted activities. Compliance monitoring of consents is not unexpectedly high as in general this is a user pays or self-reporting function. However, the performance of territorial authorities in monitoring permitted activities is low, but perhaps supplemented by plan effectiveness monitoring.

Table 3: Percentages of local authorities monitoring and reporting on their responsibilities

Responsibility		Regional councils		Unitary authorities		Territorial authorities		All	
		2010/11	2007/08	2010/11	2007/08	2010/11	2007/08	2010/11	2007/08
State of the environment	Monitor	100%	100%	83%	80%	43%	42%	54%	53%
	Report	91%	100%	83%	80%	23%	30%	37%	43%
Suitability and effectiveness of policies and plans	Monitor	91%	100%	33%	60%	64%	64%	65%	69%
	Report	45%	75%	17%	20%	38%	35%	37%	40%
Delegated/ transferred functions	Monitor	55%	73%	50%	20%	34%	44%	38%	46%
	Report	27%	55%	33%	0%	25%	29%	26%	30%
Compliance with resource consent conditions	Monitor	100%	100%	83%	80%	89%	97%	90%	96%
	Report	91%	100%	67%	80%	48%	47%	55%	57%
Compliance with permitted activities	Monitor	91%	n/a	67%	n/a	46%	n/a	54%	n/a
	Report	82%	n/a	67%	n/a	15%	n/a	28%	n/a

4.2 Other government agencies

4.2.1 Department of Conservation

The Department of Conservation has a number of databases of relevance but they are not maintained for RMA purposes. The functions of the Department primarily relate to the implementation of the New Zealand Coastal Policy Statement (NZCPS). This is guided by a national Implementation Plan.[3]

It is very early days in the implementation of the NZCPS and no data has been collected. The 1993 NZCPS was criticised by the Rosier Review for its lack of monitoring:

> *The area of poorest implementation has been in monitoring environmental outcomes and assessing the degree to which plans and policy statements have influenced environmental results. There is often a reluctance to implement national requirements because of funding implications. It is difficult to judge how significant that problem is. However, action is needed at a national level of planning to clarify responsibilities for environmental monitoring.*[4]

The Department of Conservation has taken this on board and is in the process of rectifying the lack of monitoring of the effect and implementation of the NZCPS, as required by section 28(d) of the RMA.

The monitoring to be undertaken by the Department of Conservation is consistent with the potential monitoring needs identified in the Needs Analysis.

[3] http://www.doc.govt.nz/upload/documents/conservation/marine-and-coastal/coastal-management/nz-coastal-policy-final-implementation-plan.pdf

[4] Rosier, J (2004) *An Independent Review of the New Zealand Coastal Policy Statement.* Report to the Minister of Conservation. May 2004, p 10

4.2.2 Land Information New Zealand

Land Information New Zealand identified no monitoring information of relevance to this study.

Of interest to the Ministry for the Environment however is the work of the New Zealand Geospatial Office in implementing the New Zealand Geospatial Strategy. The Strategy, published in January 2007, to better coordinate and manage the use of New Zealand's geospatial resources, looks for efficiencies in the collection, management and provision of geospatial information.

The Open Government Information and Data Re-use Work Programme, initiated in 2008, is also being progressed within Land Information New Zealand. The work programme aims to:

- Make non-personal government-held data and information more widely available and discoverable, easily usable and compliant with open government data principles within the New Zealand legal context, and
- Facilitate agencies' release of the non-personal government-held data and information that people, communities, and businesses want to use and re-use.

The website data.govt.nz (managed by the Department of Internal Affairs) provides the link to the data sets. The site focuses on machine-readable (ie, well-structured and open) datasets and contains information about the data sets listed in Table 4 below. The Ministry for the Environment, Ministry of Economic Development, Department of Conservation, Statistics New Zealand, Waikato Regional Council, Greater Wellington Regional Council and Environment Canterbury all have data sets on this website as listed. We note however this is a live website and the content is updating all the time.

The efforts of Land Information New Zealand highlight potential for increased opportunities for sharing of data, information and knowledge. There may be better interaction between agencies, resulting in improved management.

Table 4: data.govt.nz data sets of relevance to RMA Monitoring
(as accessed on 26 March 2012)

Title	Agency	Format
Water Physical Stock Account The Water Physical Stock Account provides information on New Zealand's national and regional water balance.	**Statistics New Zealand**	XLS PDF
Biodiversity Projects database This is a national catalogue of biodiversity inventory and monitoring projects, administered by the Department of Conservation, New Zealand.	**Department of Conservation**	DATABASE PDF HTML
Christchurch Earthquake Land Check Colour Zones Geospatial data on Canterbury recovery land zones, which classifies policy decisions on the status of land for rebuilding purposes following the September 2010 and February 2011 earthquakes and aftershocks.	**Canterbury Earthquake Recovery Authority**	KML/SHP API OTHER GEO
DOC geoportal Prototype geoportal for a selection of DOC geospatial datasets.	**Department of Conservation**	KML/SHP API

Title	Agency	Format
		OTHER GEO
Bathewatch – beach bathing grading software The Bathewatch software has been specifically designed to help councils determine the suitability for recreation grade (SFRG) or beach grade.	**Ministry for the Environment (MfE)**	OTHER
Freshwater Biodata Information System The Freshwater Biodata Information System (FBIS) hosted by NIWA contains fish, algae, aquatic plant and invertebrate data and metadata gathered from New Zealand's freshwater streams, rivers and lakes.	**NIWA**	DATABASE
National Vegetation Survey Databank (NVS) and NVS Express The National Vegetation Survey Databank (NVS) is a Nationally Significant Database hosted by Landcare Research that serves as a major information source for understanding and reporting on the status and trends in New Zealand's biodiversity.	**Landcare Research**	DATABASE
Water Quality Information System (WQIS) NIWA's Water Quality Information System (WQIS) holds data and metadata on a range of common water quality indicators.	**NIWA**	OTHER
Biodiversity Vegetation (Bioveg) Waikato regional terrestrial and coastal vegetation, sand dunes and wetlands that are over 0.	**Waikato Regional Council**	XLS KML/SHP OTHER GEO
National River Water Quality Network (data for 1989 to 2007) The National River Water Quality Network includes 77 sites located on 35 rivers throughout New Zealand.	Ministry for the Environment (MfE)	XLS
Regional Greenhouse Gas Inventory - Wellington region Regional greenhouse gas inventory using local data and the IPCC Tier 1 and 2 models to calculate the emissions.	Greater Wellington Regional Council	XLS
Terrestrial and Freshwater Biodiversity Information System (TFBIS) Programme Excel file of projects funded by the TFBIS Programme.	Department of Conservation	XLS
Environmental indicators - Transport (Waikato) Indicators of the use of private and public transport.	Environment Waikato	CSV
Environmental indicators - Land and soil (Waikato) The indicators for the quality of the Waikato region's land, soil and native vegetation and how it changes.	Environment Waikato	CSV
Environmental indicators - Geothermal (Waikato) Indicators for geysers and sinter springs, and visitor numbers to geothermal areas .	Environment Waikato	CSV
Environmental indicators - Coasts (Waikato) Indicators for coastal water quality and natural character and biodiversity.	Environment Waikato	CSV
Environmental indicators - Natural hazards (Waikato) Indicators about risks and damage from natural hazards (floods, volcanic activity, earthquakes and others) in the Waikato region.	Environment Waikato	CSV
Environmental indicators - Fresh Water (Waikato) Data for inland water, including groundwater, lakes, rivers, streams and wetlands.	Environment Waikato	CSV
Environmental indicators - Air (Waikato) Air quality in the Waikato region, how it changes, and the sources of air pollutants.	Environment Waikato	CSV
Groundwater Quality in New Zealand: State and Trends 1995–2006 This report provides a snapshot of groundwater quality in New Zealand.	Ministry for the Environment (MfE)	XLS

Title	Agency	Format
Water Quality - Bacterial water quality at monitored coastal swimming spots for the 2007–2008 and 2008–2009 summers Excel spreadsheet showing the monitoring results of the 2007–2008 and 2008-2009 summers season for coastal water quality for contact recreation.	Ministry for the Environment (MfE)	XLS
Energy Greenhouse Gas Emissions 2011 Report providing summarised information on human-made emissions of carbon dioxide, methane and nitrous oxide from New Zealand's energy sector.	Ministry of Economic Development	XLS PDF
Plants Biosecurity Index Working list used by importers and MAF Quarantine staff at the border to check status of plants being imported.	Ministry of Agriculture and Forestry	DATABASE
New Zealand's Greenhouse Gas Inventory 1990–2009 Inventory of New Zealand's greenhouse gas emissions and removals.	Ministry for the Environment (MfE)	XLS

4.2.3 Te Puni Kōkiri

Te Puni Kōkiri has a role in building an evidence base to understand and measure state sector effectiveness for Māori, enabled through the Ministry of Māori Development Act 1991. In this regard it monitors and liaises with agencies that provide services to or for Māori. Te Puni Kōkiri identified no monitoring information of relevance to this study, but stated they were hoping to fill gaps around Māori capacity/capability with day-to-day interaction on RMA matters by running a national survey of iwi / hapu RMA practitioners.

4.2.4 Ministry for Primary Industries

The Ministry for Primary Industries (new ministry formed from the merger of the Ministry of Agriculture and Forestry, the Ministry of Fisheries and the New Zealand Food Safety Authority) has some clear natural resource and environmental management roles in supporting the primary industry. In its role Ministry for Primary Industries undertakes a range of monitoring activities, such as:

- Farm Monitoring Overview, which provides a short-term view of the financial and production status of a range of farm types throughout New Zealand.
- Farm Level Greenhouse Gas Monitoring and Reporting

The former Ministry of Fisheries also undertook a one off stock take of Regional Coastal Plan Provisions in terms of how they allow for experimentation, research and innovation in aquaculture within their regions. This is, however, not an on-going activity.

The Ministry for Primary Industries identified only one activity as fitting within looking at effectiveness of the implementation of the RMA. That is the Dairying and Clean Streams Accord: Snapshot of Progress. This Snapshot reporting shows the progress Fonterra farmers have made towards meeting Accord targets. It uses compliance and enforcement measures under the RMA as a means of assessing such performance. It records progress made towards each of the five targets in the past season, and since 2003.

4.2.5 Ministry of Economic Development

The Ministry of Economic Development (to become part of the Ministry for Business, Innovation and Employment from 1 July 2012) identified no monitoring information of relevance to this study. They collect information on energy which may be of relevance to outcomes achieved under the RMA but this information is not collected for RMA purposes (see for example: New Zealand's Energy Outlook

(January 2012), New Zealand Energy Quarterly (September 2011), New Zealand Energy Data File 2011 and Energy Greenhouse Gas Emissions Report 2011). As noted above, this information is also on the data.govt.nz website. The Ministry for the Environment also reports this data as part of climate change reporting and SOE reporting.

4.2.6 Department of Internal Affairs (Local Government)

The Department of Internal Affairs identified no monitoring information of relevance to this study in its role as central government's adviser on local government policy.

4.2.7 Department of Building and Housing

The Department of Building and Housing identified no monitoring information that was of relevance to this study. The Department produces a number of key indicator reports that analyse sector trends which may be of interest to the Ministry for the Environment in relation to: Auckland; Canterbury; construction; the housing market; and social housing.

4.2.8 Ministry of Justice (Environment Court)

Our discussion with the Environment Court Registrar highlighted the degree of monitoring undertaken by the Court in order to develop measures around reducing the average time taken for disposal of cases.

A lot of information is recorded, namely:

- Cases received
- Cases disposed
- Percentage of Environment Court pending Plan and Policy Statement Appeals under 12 months old
- Resource Consent Appeals and Other Matters under 6 months old
- Percentage of Environment Court judges surveyed that are at least "satisfied" with case management/file preparation and presentation
- Percentage of Environment Court judges surveyed that are at least "satisfied" with courtroom, hearing and mediation support

This reflects that Ministry of Justice caseload measures are common across jurisdictions and reflect services that relate to the work of the various courts and to support the work of the judiciary in determining and managing cases. However, the data set within the Case Management System does allow the Environment Court to measure more than they report externally but they need to write queries to run through the database. The information retained on the Case Management System only allows quantitative data - i.e. it does not tell you the factors at play that led to a case taking 6 months or a year to be determined. That information is held on case files and is not measured. There would be considerable additional effort to make the data available for other purposes.

4.2.9 Environmental Protection Authority

The functions of the EPA in relation to Nationally Significant Proposals under Part 6AA of the RMA were the only aspect of the EPA's powers and functions relating to the RMA. This was consistent with the findings of the Needs Analysis.

The RMA Survey of Local Authorities by the Ministry of the Environment captures the processing of nationally significant proposals.

In addition, the EPA has just adopted a Monitoring and Evaluation Strategy which will guide their statutory reporting functions and enable improvements in process. A copy of the draft document is included in our stock take data-base. Not only does the data collected relate to administrative databases, but the EPA will be undertaking semi-structured interviews with key stakeholders to get broader-in depth qualitative information. It is yet to be implemented and will be reviewed annually at which time its strengths and weakness can be identified.

The Ministry may also be interested in the EPA's Report on "Monitoring the effectiveness of the Hazardous Substances and New Organisms Act 1996". [5] ERMA New Zealand has prepared a monitoring report annually since 2001 to summarise overall progress in achieving the outcomes laid out in the purpose and principles of the Hazardous Substances and New Organisms Act.

4.2.10 Statistics New Zealand

Statistics New Zealand identified no monitoring information of relevance to this study.

Statistics New Zealand however does have information about natural resources and how many of those natural resources are being used by different industries. There is also information available about expenditure on environmental protection and sustainable development.

The report "Key Findings on New Zealand's Progress Using a Sustainable Development Approach: 2010" measures New Zealand's environmental, economic, and social progress and updates 13 of the 16 key indicators used in the report "Key Findings on New Zealand's Progress Using a Sustainable Development Approach: 2008". The results of the indicators answer four main questions, based around four key concepts:

- Meeting needs – how well do we live?
- Fairness – how well are resources distributed?
- Efficiency – how efficiently are we using our resources?
- Preserving resources – what are we leaving behind for our children?

The Environment Statistics Strategy provides Statistics New Zealand's vision for environmental statistics over the next five years and identifies the department's national role in the provision of environmental statistics; the framework is set in Figure 3 below.

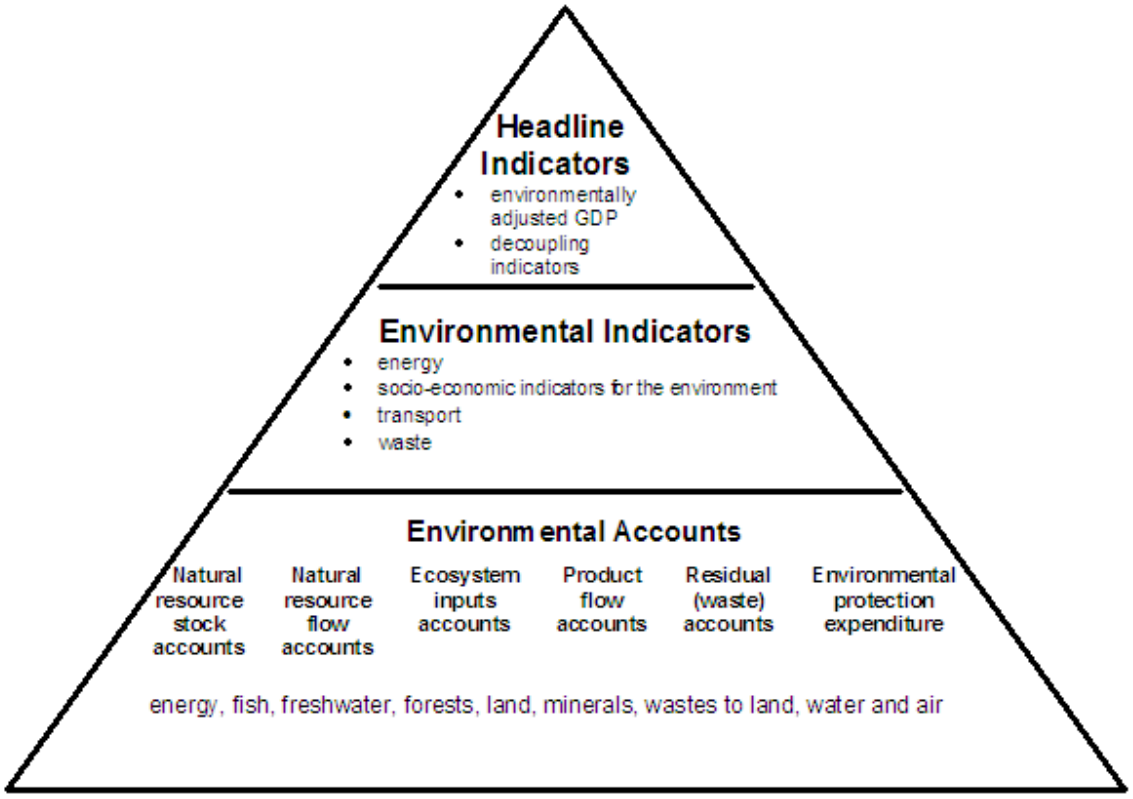
The Strategy also identifies some guiding principles that highlight important monitoring elements:

- improve data quality
- use accepted international principles
- use industry accepted standards
- integration of outputs
- improve data access
- promote environment statistics among users
- strengthen liaison, communication and co-operation between organisations,

These principles align well with the intent of the Monitoring and Review Project.

[5] http://www.epa.govt.nz/Publications/Monitoring%20Report%202011.pdf

Figure 3: Statistics NZ's environmental statistics framework



For more information about the work of Statistics NZ see:

- http://www.stats.govt.nz/browse_for_stats/environment/sustainable_development.aspx
- http://www.stats.govt.nz/browse_for_stats/environment/natural_resources/environment-domain-plan.aspx

However nothing recently has been posted.

4.3 Councils

4.3.1 Auckland Council

As a result of its recent amalgamation, the nature of the monitoring at Auckland Council is different from the other councils analysed. There are clear differences between the monitoring strategies of each of its legacy councils and the current challenge is amalgamation into one monitoring framework.

The creation of a centralised Research, Monitoring and Investigation Unit for Auckland Council has provided an opportunity to develop a fully integrated monitoring plan. This will result in all monitoring activity being managed by one unit, allowing for coordination of information collection, analysis and reporting. The current monitoring focus of the Auckland Council is predominantly on SOE monitoring and performance monitoring, which includes monitoring compliance activity and the monitoring of resource consents through their life cycle.

Further reviews and updates to the monitoring framework will be undertaken once the Unitary Plan is prepared.

4.3.2 Waikato Regional Council

The Waitako Regional Council Long Term and Annual Plans contain the business drivers that determine what SOE monitoring the Council undertakes. The most significant innovation being adopted by the Waikato Regional Council is the implementation of a new operating system for consents, compliance and enforcement monitoring called IRIS – Integrated Regional Information System. This is being worked on by seven regional councils (Northland Regional Council, Waikato Regional Council, Horizons Regional Council, Taranaki Regional Council, West Coast Regional Council, Environment Southland). See Appendix 3 for detail on IRIS obtained from Waikato Regional Council.

4.3.3 Bay of Plenty Regional Council

The Bay of Plenty Regional Council has live monitoring information available on its website making data about the SOE readily obtainable. Resource consenting and compliance and enforcement reporting was however not openly reported, but reported regularly to the operations, monitoring and regulation committee of the Council. Information was not provided on plan or policy monitoring as SOE monitoring was said to fulfil this role.

4.3.4 Hawke's Bay Regional Council

The response received was comprehensive. The council does have a monitoring strategy document ("Guide to Environmental Monitoring Strategies for Hawke's Bay Regional Council") which identifies the process of monitoring, mainly in the area of SOE, for the purposes of providing feedback for development of the Regional Plan. Compliance and consents monitoring also takes place as part of feedback into the Regional Plan. In summary, the council has created a clear framework which identifies for which purpose monitoring is undertaken.

4.3.5 New Plymouth District Council

The current monitoring focus of New Plymouth District Council is on resource consents and compliance and enforcement, the key indicators of which are in line with the Ministry for the Environment's RMA Survey of Local Authorities. Plan and policy monitoring has been undertaken but has not been reported in the public arena. Original attempts at integrated monitoring (eg: with the Long Term Plan) have not been followed through.

Policy and plan monitoring is typically undertaken once an issue is identified. New Plymouth District Council is similar to other councils of its size as there are no formal monitoring strategies or frameworks actively in place. An integrated monitoring strategy was adopted in the past but was not followed through (eg: information was collected, but was not reported). Council has invested in systems to improve monitoring and a draft monitoring strategy is currently being developed

4.3.1 Horizons Regional Council

Horizons Regional Council RMA monitoring is based on the close integration between the science, compliance, consents and policy teams. This means that information is shared quickly and freely through both formalised and informal feedback mechanisms. This also allows all consenting, compliance and policy decisions to be reinforced by an in depth technical understanding of the science behind environmental issues. This is the primary reason their RMA monitoring is so heavily focussed on SOE monitoring as it underpins all their RMA related activities. Because the council is working through the last stages to establish its new 'One Plan' there is no plan/policy monitoring strategy. Once the 'One Plan' is finalised, a monitoring strategy is to be developed.

The SOE monitoring focus of this council is typical of other regional councils of a similar size that operate in a predominantly farming context. Clear monitoring is in place, even if clear monitoring strategies are not explicitly outlined in a centralised monitoring strategy.

4.3.2 Rangitikei District Council

The monitoring focus of Rangitikei District Council is centred on resource consents, with some compliance and SOE information also gathered. This is, however, only as a small part of resource consent monitoring. The degree of monitoring undertaken by the council is similar to other councils of the same size.

Rangitikei District Council is typical of councils its size as it does little formalised monitoring. Monitoring is primarily done to complete the Ministry for the Environment's RMA Survey of Local Authorities. Further monitoring strategies are in the process of being developed.

4.3.3 Porirua City Council

The resource consent and compliance monitoring was focused around collecting information for the Ministry for the Environment's RMA Survey of Local Authorities. It is driven primarily by the council's Long Term Plan and Business Plan targets. Plan/policy is monitored through resource consent and compliance monitoring functions against indicators, and timelines set out in the Long Term Plan. Like other district councils, Porirua City Council's SOE monitoring is largely conducted by the regional council with the exception of some monitoring the council conducts on Porirua Harbour and its catchment.

4.3.4 Greater Wellington Regional Council

The council has formalised monitoring strategies for most of its functions under the RMA, including strategy adopted in 2001[6]. The council generates a number of resource consent, compliance, enforcement and SOE summary reports that are made publically available. These reports clearly have consistent data collection methodologies, which illustrates the presence of a robust monitoring strategy. Annual report cards are compiled for regulatory activities and cover resource consents, compliance monitoring, incident response, enforcement and pollution prevention[7] The council has ISO 9001:2000 quality management system certification for their procedures and practices for processing applications and monitoring consents.

4.3.5 Wellington City Council

The monitoring undertaken by the policy, resource consent and compliance/monitoring teams enables the completion of the Ministry of the Environment's RMA Survey of Local Authorities; enables reporting on Long Term Plan measures; and enables reporting on the effectiveness of the District Plan and reporting (by way of feedback from monitoring/compliance officers to processing planners) on the effectiveness of resource consent conditions imposed. The policy team is currently re-establishing a comprehensive monitoring programme, but already undertakes a number of targeted monitoring activities including: a monthly report covering resource consent activity and the status of plan changes / appeals; research / monitoring focused to upcoming plan changes; monitoring of key statistical data (including building consent and demographic data); and other

[6] See http://www.gw.govt.nz/assets/council-publications/Environment%20Management_20040326_091511.pdf

[7] See http://www.gw.govt.nz/regulationreportcards/

individual research exercises (for example, a current study is addressing the regulatory burden of the district plan).

4.3.6 Tasman District Council

The council does have monitoring strategies in place which direct compliance and SOE monitoring ("Environmental Monitoring and Reporting Strategy for Tasman District" and "Compliance Monitoring Strategy"). Performance indicators in the council's Long term Plan also set out aims for compliance monitoring. Data collected during compliance monitoring feeds into the resource management plans. State of the natural environment research is undertaken, and provides feedback into the resource management plans too. SOE data is collected for land use and subdivision for the purposes of assessing the effectiveness of the resource management plans. The Plan itself has undergone a large amount of Plan Changes, which makes it difficult to monitor effectiveness as implementation times have not been very long. Section 32 reports have provided a level of monitoring of effectiveness throughout this process. Tasman District Council therefore has had frequent opportunities for feedback through Plan Changes (both for Regional and District roles).

4.3.7 Grey District Council

Plan/policy statement data provided for the survey was comprehensive. Resource consent data was interpreted to mean the use of consent monitoring to provide input into the Plan development. The resource consent data sheet reflects monitoring for the Ministry for the Environment's RMA Survey of Local Authorities. No SOE monitoring was identified. A community survey on satisfaction with District amenity was identified. One survey has been undertaken; however it has little information on outcomes in the way of amenity.

Grey District Council appears to be operating as a typical small council would. Limited resourcing has meant a comprehensive strategy for RMA monitoring for the purposes of providing input to improve RMA processes has not been implemented. However, compliance and resource consent monitoring is used to provide feedback on the district plan, which in turn is reviewed accordingly under the timing rules of the RMA.

4.3.8 Environment Canterbury

Environment Canterbury's RMA monitoring is underpinned by a strong SOE monitoring programme. In depth reporting is conducted on other RMA functions (such as compliance and policy). Environment Canterbury was particularly strong on its compliance monitoring approach reflective of the large number of consents granted in Canterbury each year.[8] Environment Canterbury like other regional councils had "live" monitoring data available, including for: river flows, rainfall, swimming water quality, air pollution, and wave buoys.

4.3.9 Waitaki District Council

The Waitaki District Council has an Environmental Monitoring Strategy (adopted in 2003) that sets out the purpose and objectives of the council's environmental monitoring activities. The Strategy has priority and indicators. The Strategy states that the council has limited resources and that it deals with environmental issues as identified in the district plan. There are gaps in the response associated with the compliance function and this seems to be due to a strategy that is primarily

[8] See http://ecan.govt.nz/our-responsibilities/enforcement-regulation/Pages/compliance-monitoring-activity-report.aspx and http://ecan.govt.nz/publications/General/compliance-monitoring-enforcement-guidelines-000510.pdf

driven by feedback and complaints. The Waitaki District Council is committed to developing and implementing over the long-term an integrated monitoring programme.

The council has also prepared a number of SOE reports on utilities, subdivision, land use (rural), heritage and energy.

4.3.10 Southland District Council

Comprehensive feedback on all data sets was provided. With regard to compliance/enforcement and resource consents data, the council appears to have efficient data collection systems and regular feedback processes. Performance goals for these areas have been identified on the Long Term Plan, and actual outcomes are reported on regularly. For plan/policy statement data, it has been recognised that the current plan has not undergone much monitoring apart from a small amount of feedback from consents. Preparation is underway for a more comprehensive monitoring system for the 2nd generation plan, with the 1st generation plan currently being reviewed. In terms of SOE monitoring, the council has projects that monitor land use changes and population forecast. Research appears to be project-based rather than as part of an overall strategy.

Southland District Council has taken steps to create a strategic approach to the monitoring it undertakes. It also appears to be identifying the gaps in its monitoring framework and has plans to address this.

5 Findings – overview of government agencies

As identified by the Needs Analysis only the Environmental Protection Authority, the Department of Conservation and the Ministry for the Environment have monitoring functions under the RMA.

The Ministry for Environment's RMA Survey of Local Authorities and their Environmental Reporting programme are the main functions of the Ministry in relation to RMA monitoring.

The Ministry of Justice and the Ministry for Primary Industries have monitoring data and systems of significant relevance too; namely in the operation of the Environment Court and in compliance of dairying issues under the RMA.

There is no data reported in our survey from:

- Land Information New Zealand
- Te Puni Kōkiri
- Ministry of Economic Development
- Department of Internal Affairs
- Department of Building and Housing
- Statistics New Zealand

Nevertheless, there is a lot of related data openly reported on websites – for example Statistics New Zealand and Ministry of Economic Development – which the Ministry for the Environment may be interested in. The data.govt.nz website offers potential for sharing information databases.

There are no commonalities in relation to data systems of those agencies we identified as recording data.

The Ministry for the Environment and Statistics New Zealand are receivers of data, particularly in relation to SOE reporting and in the case of the Ministry in relation to information collected for the RMA Survey of Local Authorities. The indicators and data requirements from these two agencies drive many local authority indicators and data collection standards.

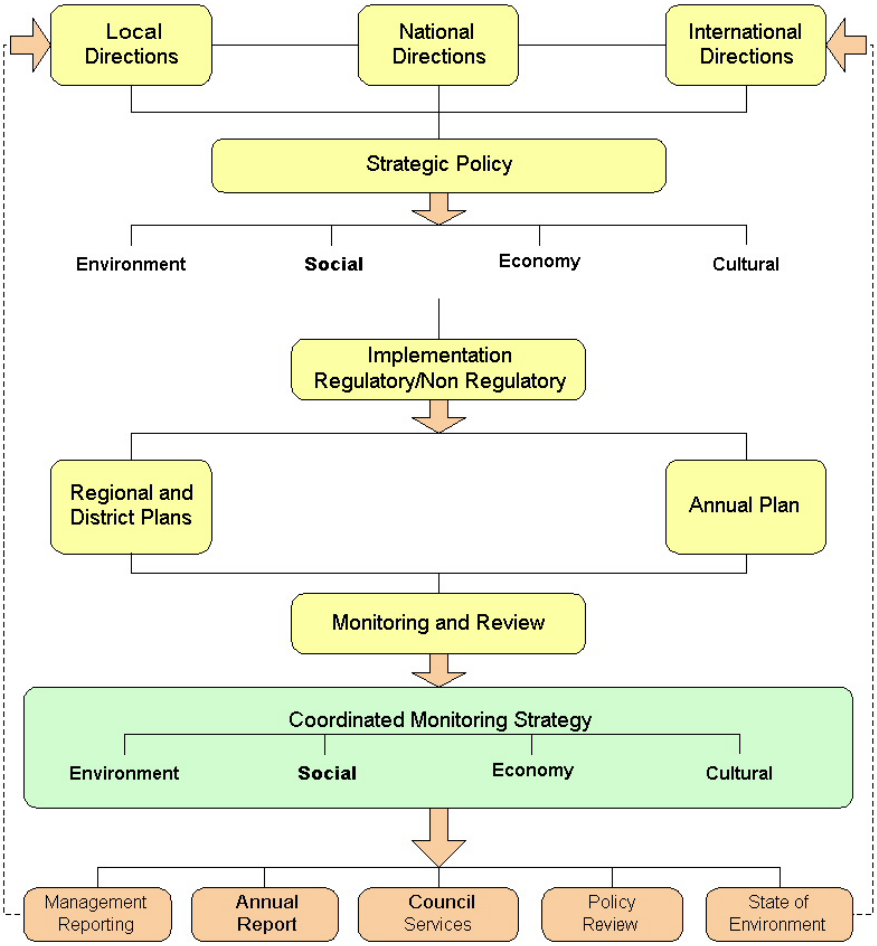
6 Findings – overview of councils by process, data, systems, network, and costs

6.1 What process was chosen and what outcome was achieved?

Q1 - Do you have a strategy/framework to monitor all/some components under this function? If so in what form is it?

Our impression is that most of the councils did not have comprehensive monitoring strategies. We found strategies for Auckland Council (in draft), Tasman District Council (in draft), Waikaki District Council, Hawke's Bay Regional Council (see Figure 4), Greater Wellington Regional Council[9] and Waikato Regional Council[10]. Some of these are found on the quality planning website, but there are newer examples. A strategy assisted those that had one with prioritising what is most important to monitor and provided the integrated frameworks for such activities. The strategies were on the whole very comprehensive.

Figure 4: Hawke's Bay Regional Council's framework base on the QP website guidance



[9] http://www.gw.govt.nz/assets/council-publications/Environment%20Management_20040326_091511.pdf

[10] http://www.qp.org.nz/pubs/3578.pdf

Strategies and frameworks were more typically associated with SOE monitoring by regional councils. In most cases compliance and enforcement functions had an overall strategy document. Territorial authorities had implementation type strategies setting out their monitoring requirements for their plans.

Many of the strategies for monitoring were contained in the Long Term Plans prepared under the Local Government Act 2002. For example the following is an extract of a strategy in the Draft Environment Canterbury Long Term Plan 2012-13.

Level of service 4: Effectively manage the ecosystem health of lakes, foothill and lowland rivers, and streams

Measure: Annual ecological health monitoring programme is implemented.

Target: Information is available on an annual basis about the percentage of coastal and high country lakes monitored recording an improved trophic state; and the percentage of rivers and streams recording fair, good or very good biotic and habitat health.

This is a new level of service for this Long-Term Plan. It has been changed to reflect how we monitor, communicate and work with others.

For some the frameworks for monitoring were also briefly contained in their district plan (e.g. Tasman District Resource Management Plan [11]), therefore meeting their requirements under section 75(2)(e) of the RMA to include the procedures for monitoring the efficiency and effectiveness of policies and objectives, but then more heavily detailed in other strategies.

Only a couple of the councils separately published their strategies on the web for RMA monitoring outside of the Long Term Plan or District Plan – some did however contain lists of monitoring activities.

Compliance and enforcement strategy documents were particularly inaccessible from a public perspective.

At the very minimum councils relied upon the requirements specified by the Ministry for the Environment's RMA Survey of Local Authorities as to what they needed to monitor, especially in terms of the resource consent monitoring.

Q2 - Does the strategy/framework identify outcomes and/or indicators, if so what?

A variety of indicators were set. There was little consistency between the territorial authorities.

Indicators reflected the pressure, state, response formula for indicator setting. For example in urban and residential environments:

- Pressure indicators such as population change in the last 5 years, number of building consents issued for new dwellings, number of complaints received from residents for neighbourhood nuisances, or percentage change in property prices as measured by land valuations
- State Indicators such as the number of dwellings per area of residential land, area of land in public parks, reserves and accessways, resident opinion survey on amenity values

[11] http://www.tasman.govt.nz/document/serve/04-Monitoring%20%26%20Review%20Procedures.pdf?path=/EDMS/Public/Other/Policy/Plans/ResourceManagementPlan/TRMPText/Part_I_-_Introduction/000000176146

- Response Indicators such as the number, nature and scale of non-compliances with conditions on resource consents

Regional council monitoring reflected regional variability and included indicators around: air quality; coastal dynamics; coastal, estuarine and freshwater ecology; freshwater wetlands; geothermal and non-geothermal groundwater; river and stream channel; surface hydrology; sustainable land management; terrestrial indigenous biodiversity; and water quality.

Ministry for the Environment identified indicators[12] were evident in the indicator sets.

Q3 - If you have no strategy/framework how was it decided to collect the data?

Where no strategy was in place the approach was to look at pressure resource issues (e.g. dairy shed effluent or spray drift). In the case of Grey District community perception of amenity values was identified in the Long Term Plan, but it was not followed up by an actual survey.

The cost of monitoring was anecdotally noted as a constraint on what monitoring was undertaken.

A comment was made that Discount Regulations and the reporting of local government performance by the Minister had sharpened the focus on processing timelines under the RMA for resource consents.

Data demands of plan monitoring meant some councils did not undertake monitoring until a review of data was required when the plan was being reviewed.

Q4 - How did you select indicators/measures for the issues? What, if any, framework, logic and criteria did you use? Were they specified by someone else?

Smaller councils did limited monitoring. District and regional plans set out the monitoring requirements for plan monitoring as would be expected.

Indicators set by the Ministry for the Environment's national environmental reporting programme were influential in setting the core set of environmental indicators for regional councils in SOE monitoring.

However, there was a wide variance of indicators used by territorial authorities, in some cases they relied upon the regional council monitoring to provide information about the state of the natural environment.

Indicators for resource consent monitoring were generally set by the Ministry for the Environment's RMA Survey of Local Authorities and the timeframes specified in the RMA.

Indicators for compliance and enforcement depended on the matters specified in the Long Term Plan. There was no overall consistency in approach.

Q5 - What mechanisms do you use to provide feedback between monitoring and decision-making?

Feedback varied from no feedback, to informal feedback conversations, internal workshops and formal reporting and evaluations. Some councils prepared a formal report under s 35 of the RMA to

[12] http://www.mfe.govt.nz/environmental-reporting/about/tools-guidelines/indicators/core-indicators.html

feed into plan review, for example, Greater Wellington Regional Council for the Regional Plan for Discharges to Land[13]

Q6 - What are your timeframes for implementing and reviewing your monitoring strategy or approach?

Compliance monitoring and enforcement tended not to be reviewed, but many responded informally that review was overdue. Typically SOE and plan monitoring was reviewed on a 3-5 year scale associated with the Long Term Plan. As consent information was collected to meet the Ministry for the Environment's RMA Survey of Local Authorities, changes were made to meet the requirements of the survey – which tended to be each time the survey was undertaken.

Q7 - Are there any proposals to change what you do?

Plan reviews led to changes in approaches, as has amalgamation, for example, in the case of the Auckland Council, where they are reviewing their monitoring and compliance business as part of the process of integrating to one Auckland Council. This will also include a review of reporting and business monitoring. The review is expected to be complete by the end of June.

As mentioned some regional councils are moving to a new system called IRIS – Integrated Regional Information System – but it has yet to be deployed. The IRIS system will comprise a set of Council-specific functional modules: consents, compliance and environmental monitoring, bio-security, biodiversity, land management, contacts, request for service, SOE results, and RMA plan submission consultation. This has significant implications for the future of monitoring. Our experience in undertaking this stock take has shown that existing off-the-shelf systems in the local government market are based around the assessment and/or land parcel of a property, whereas the regional council needs are primarily driven around a spatial association. There will be significant benefits for the Government's geospatial strategy.

Q8 - Are there any indications that identified anticipated outcomes are being achieved?

In relation to compliance and enforcement there were some significant success stories. There were clear indications that where KPIs in Long Term Plans were set they were being met (e.g. number of days to respond to a complaint, undertake site visit). KPI information was not reported within the Ministry for the Environment's RMA Survey of Local Authorities.

Compliance for dairy compliance reporting was particularly highlighted and perhaps related to the Ministry for Primary Industries reporting requirements for monitoring the effectiveness of the Clean Streams Accord.

6.2 What data is collected?

Q9 - What data is collected (both quantitative and qualitative)?

Both quantitative and qualitative data sources exist, especially for SOE monitoring and compliance monitoring. Qualitative data tended to come from surveys.

SOE monitoring highlighted a vast range of data including information greater than the Ministry for the Environment's indicator set:

[13] http://www.gw.govt.nz/assets/council-publications/Plan_effectiveness_report_for_the_DTLP.pdf

- groundwater and surface
- hydrometric network covering groundwater, surface water, tide gauges and rain gauges (rainfall, stage, quantity, tide hight etc)
- recreational bathing water (marine and freshwater)
- marine monitoring buoys to gather sea state information
- meteorological information
- air quality
- estuarine health and state
- soil type, quality and intactness
- river and coastal cross sections to monitor erosion
- LiDAR terrain information
- terrestrial biodiversity information
- wetland extent and condition
- condition/location of existing and closed landfills
- hazardous facilities
- contaminated site location and state
- energy
- transport
- utilities
- changing rural land use
- heritage

Monitoring of resource consent processes tended to be quantitative in nature and accord with the requirement of the RMA Survey of Local Authorities, for example the following is the list of what Southland District collected:

- Number withdrawn or declined consents
- Number of notified, limited notified, non-notified consents (with and without hearing)
- Number of landuse and subdivision consents
- Timeframes - whether within the legislative timeframes and whether section 37 were used
- Average processing timeframes for notified, limited notified and non-notified
- Number of consents which had iwi notified
- The subtype of resource consents (number that are discretionary, controlled, restricted discretionary, non-complying)
- Number of pre-application meetings
- Number of other consent matters dealt with eg. Number of section 127 applications
- Number of further info requests
- Number of prehearing meetings
- Who made the decision to grant consent (eg officer, commissioner, committee)
- Number of objections and appeals to the Environment Court
- Number of procedural errors
- Revenue collected from resource consents
- Number of discounts given and the amount

Q10 - Who collects data?

Data was generally collected by council staff. Planners collected information on plans, scientists collected SOE information, consents staff collected consents information and compliance staff collected compliance information. As a result each had their own systems for data collection within a council.

The balance of data collection of national versus local needs is in favour of delivery of data for local needs. The exception being the RMA Survey of Local Authorities which has determined data requirements for consent processes – although this in part is driven by the requirements of the consent processing under the RMA. For small councils consent process monitoring is a major part of their monitoring effort.

Q11 - Where does the data come from? Is it primary or secondary data?

Most of the information collected is primary sourced – whether it be data about processing times for resource consent application or 24 hour average PM_{10} readings in the monitoring of air quality.

Plan monitoring however used secondary sources too, for example Statistics New Zealand or the regional council to provide wider contextual relationships.

Regional councils collected more primary data than territorial authorities, reflecting their natural resource focus. Bay of Plenty Regional Council and Environment Canterbury also have their own laboratories.

Q12 - What processes are used to capture data (e.g. process input (i.e. consents), survey, periodic/regular research, evaluation, data requests, monitoring)?

All manner of processes were used to capture data: monitoring, surveys, episodic research, evaluation and modelling.

Q13 - Is there any standard/s to which the data is collected? (e.g. ISO, NZS, developed by the council)

In general best practice standards are developed and followed for data collection. Internal protocols had been developed to help councils and teams capture and develop their own consistent data. Various councils follow prescribed data collection and handling procedures (such as ISO and NZS procedures). Auckland Council noted it was ISO 9001:2008 accredited (Quality Management System). Greater Wellington noted it was ISO 9001:2000 accredited (Quality Management System).

Q14 - What is the frequency of the dataset or survey? (e.g. quarterly, monthly, annual)

Consenting data in some councils could be reported weekly, however quarterly (or council committee meeting) and public reporting annually was typical. Annual data sets were available on request. Some councils had real time monitoring available on websites from SOE monitoring (e.g. Environment Canterbury, Bay of Plenty Regional Council).

Reviews of plan effectiveness were prepared in accordance with statutory requirements – 5 yearly. Some are available on websites, but typically they went on to form part of the section 32 reporting.

Q15- How long has the data or survey existed? (e.g. start and/or end date)

Consents data sets tended to be most comprehensive in the last 3 years.

Some SOE data sets were long in duration, for example, Auckland Council reported its earliest hydro records from the mid-1960s and Bay of Plenty Regional Council had coastal erosion data sets from the 1970s.

Plan effectiveness monitoring tended to be one off.

Q16 - Are there any known weaknesses or dependencies in the data?

Councils have had different business rules and formats for the collection and storage of data - which makes amalgamation into one system quite difficult. The quality of the information also varies, as a result. This is most evident with the newly created Auckland Council.

Even within councils the situation varies enormously across datasets. As identified by Tasman District Council in relation to plan monitoring, there are dozens of themes or issues for which there

are assemblages of relevant datasets, spanning natural resource policy and urban and rural development.

Technology and tools for visualisation, modelling and spatial analysis of information and its effective presentation were seen as rapidly developing, in response to increased public expectations and the Government's demand for enhanced services, including the sharing of data between organisations (open data).

6.3 What systems are used to support the data?

Q17 - Who holds the data collected?

Council in every case holds its own data. However, each department within council across the various functions is generally in charge of managing their own systems. Systems were not integrated.

Only in Waikato Regional Council did we identify an inventory of:

- What was measured where, how often and by whom?
- Where the data are currently stored and in what form?
- Whether the data are available and how accessible they are?
- Who is the contact person/department knowing more about particular data?
- What data/information has been published (reports and documents)?

Q18 - What are the systems, infrastructure and processes used to manage the data? How is it retrieved?

District or city councils' computer systems tend to relate to specific land-based properties or to infrastructural assets like roads or sewerage systems. Regional councils environmental monitoring and other work requires them to know the location of a myriad of activities and where and how they are happening.

A wide range of systems were identified across the councils. The most commonly referenced were those used to store data relating to regional SOE monitoring, such as 'Hilltop', 'Ecobase' and 'Hydrotel'. A system named 'Tech1' also seemed popular for territorial authority functions. However, the most frequently referenced systems were those created in Microsoft Access or Excel, especially for smaller councils. Customised systems were also developed such as R2D2.

Tables 5 and 6 highlight the various systems used.

Table 5: Data-bases used by regional councils/unitary authorities

Regional/Unitary Councils	SOE	Resource consents	Compliance
Auckland Council	Hydstra; Ecobase; Hydrotel	Council consent tracking system; GIS	Council database
Bay of Plenty Regional Council	NERMN; LABSTAR; Hydrotel; Other databases	Council consents database	Council database
Environment Canterbury	SQUALARC; Tideda; Envista; Bgauging; Ecosystem health	TRIM; Council consents database.	Council database
Greater Wellington Regional Council	*Unknown*	Ozone	Ozone
Hawke's Bay Regional Council	Hilltop; Hydrotel; Puddle	Daisy (MS Access)	Daisy (MS Access); Hilltop; MS Excel; Cactus (MS Access); Ping (MS Access)
Horizons Regional Council	Hilltop; QualArc; Caddis; Ecobase	R2D2 (IRIS)	Hilltop; R2D2 (IRIS); Dairy database
Tasman District Council	SQL; Hilltop	*Unknown*	Council database
Waikato Regional Council	Hydrotel; Ecobase	RUAS (but transfering to IRIS)	Compliance Monitoring Database, Enforcement Tracker and Call Tracker (but transfering to IRIS)

Table 6: Data-bases used by territorial authorities

District Councils	SOE	Resource consents	Compliance
Grey District Council	–	Oracle system	MS Access; MS Excel; hard copy
New Plymouth District Council	–	Tech 1; Hummingbird; hard copy	Tech 1; Hummingbird; hard copy
Porirua City Council	GIS; Hummingbird	Tech 1; Council database	Tech 1; Council database
Rangitikei District Council	Napier Computer Systems regulatory package	Napier Computer Systems regulatory package	Napier Computer Systems regulatory package
Southland District Council	Council network	MS Excel; hard copy	Council database
Waitaki District Council	Council network	MS Excel; hard copy	Authority system (CRM module)
Wellington City Council	MS Excel	Council database	Council database

Most councils systems were specific to that council, for example, that provided for Tasman District Council's compliance monitoring dairy farm data-base (see Figure 5). While others were comparable across councils, such as the Tech 1 data-base used by New Plymouth District Council (see Figure 6). Hydrotel was common for telemetry information and Hilltop for air quality, water quality and water quantity (see Figure 7).

Figure 5: Screen shot from the Tasman District Council Dairy Farm Database

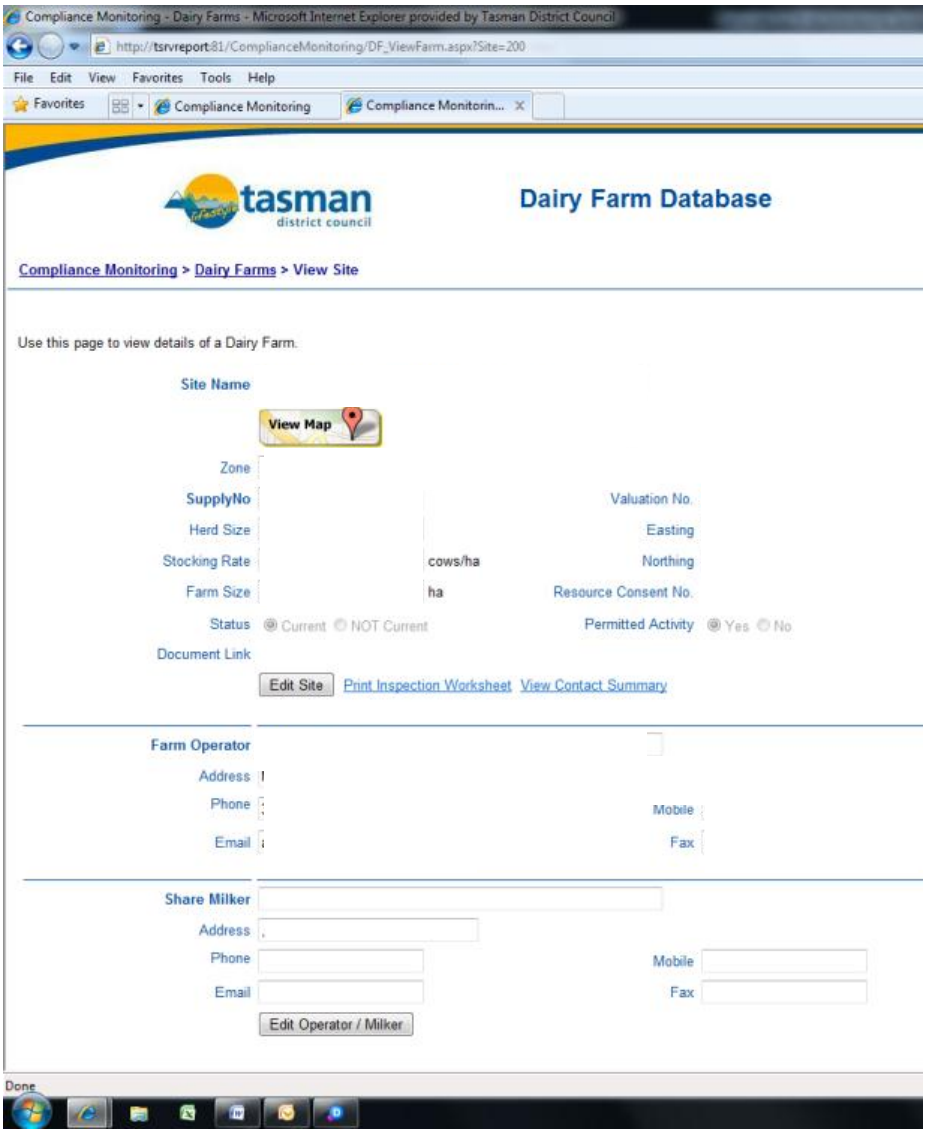


Figure 6: Screen shot from the New Plymouth District Council Tech 1 Resource Consents Database

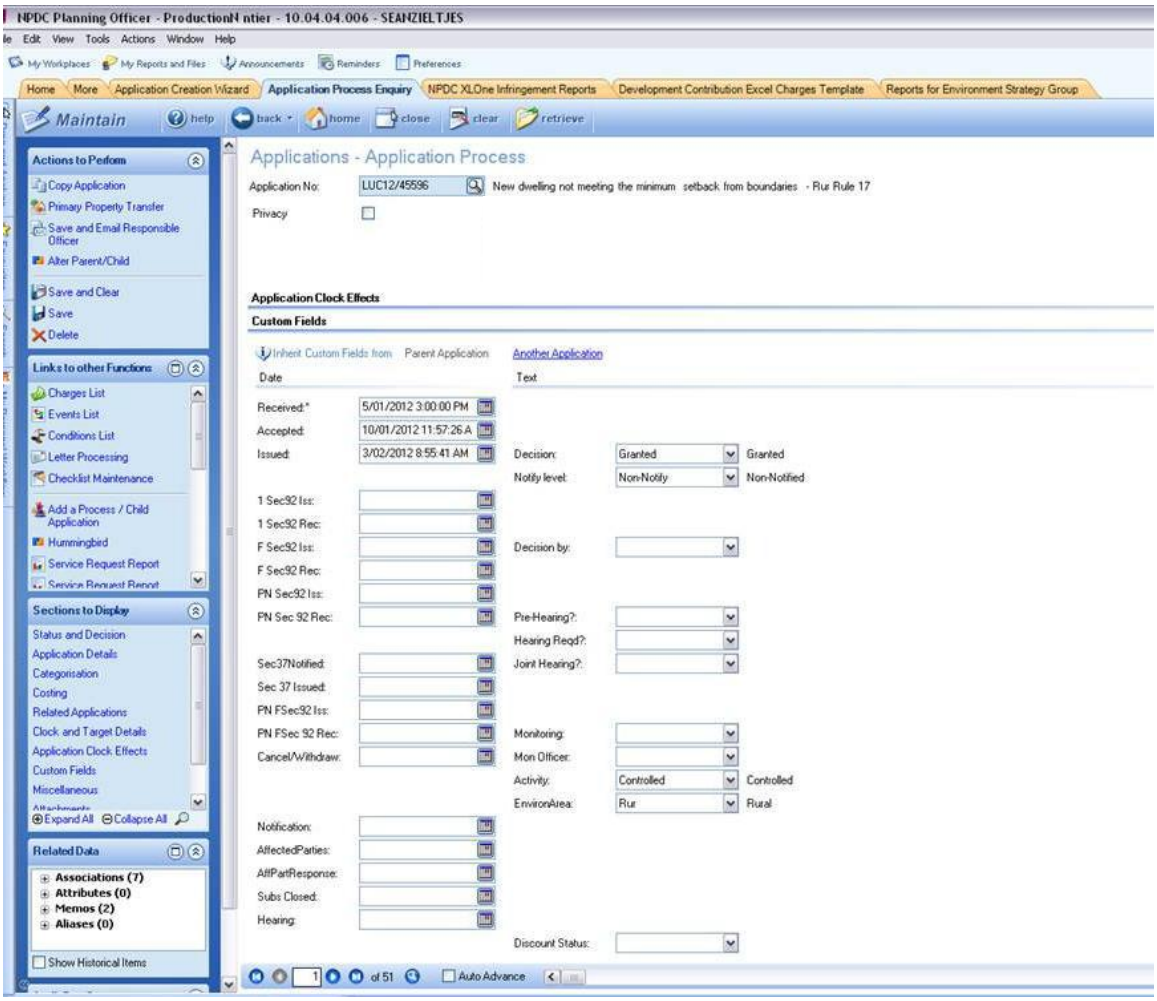
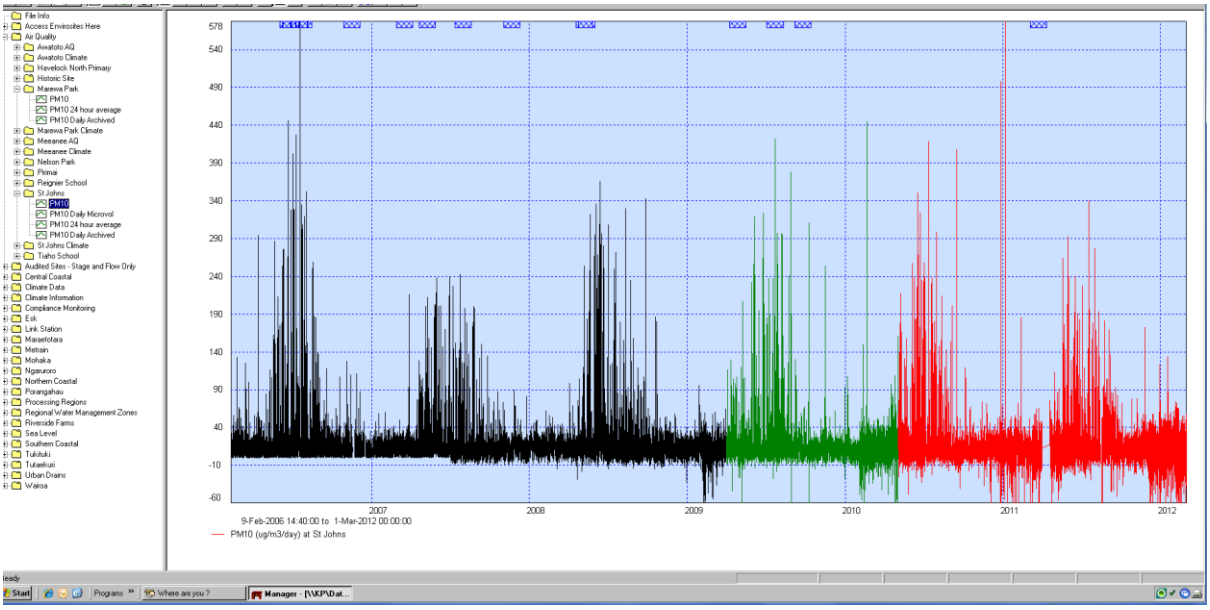


Figure 7: Air quality data in Hilltop from the Hawke's Bay Regional Council



Q19 - How is the data used?

The data held within these systems is then used for a range of purposes. SOE monitoring data is regularly reported on, both to the council and the public. Compliance/enforcement and resource consents data gathered is fed into general business reports, used for performance monitoring and for assessing any improvements that can be made to processes. It is also used to provide feedback on the Ministry for the Environment's RMA Survey of Local Authorities. SOE monitoring, compliance/enforcement data, and resource consent data are all used to provide feedback on the effectiveness of plans and any review that needs to take place. The amount of data inputted and the range of uses varies depending on the size of the council.

Q20 - What analysis is done of the data?

Analysis of data held appears to be conducted on an as-needed basis, in response to specific requirements such as consent conditions, Long Term Plan performance goals, plan reviews and the Ministry for the Environment's RMA Survey of Local Authorities. The exception to this is SOE monitoring, the analysis of which is fairly extensive given the reporting requirements for this function. Again, the level and range of analysis undertaken varies depending on the size of the council.

Q21 - What reporting is undertaken (type, style, format, frequency)?

Figures 8 to 10 highlight the frequency of reporting across all the councils. All reporting frequencies recorded are reported in the graphs.

Figure 8: SOE reporting frequency of reporting

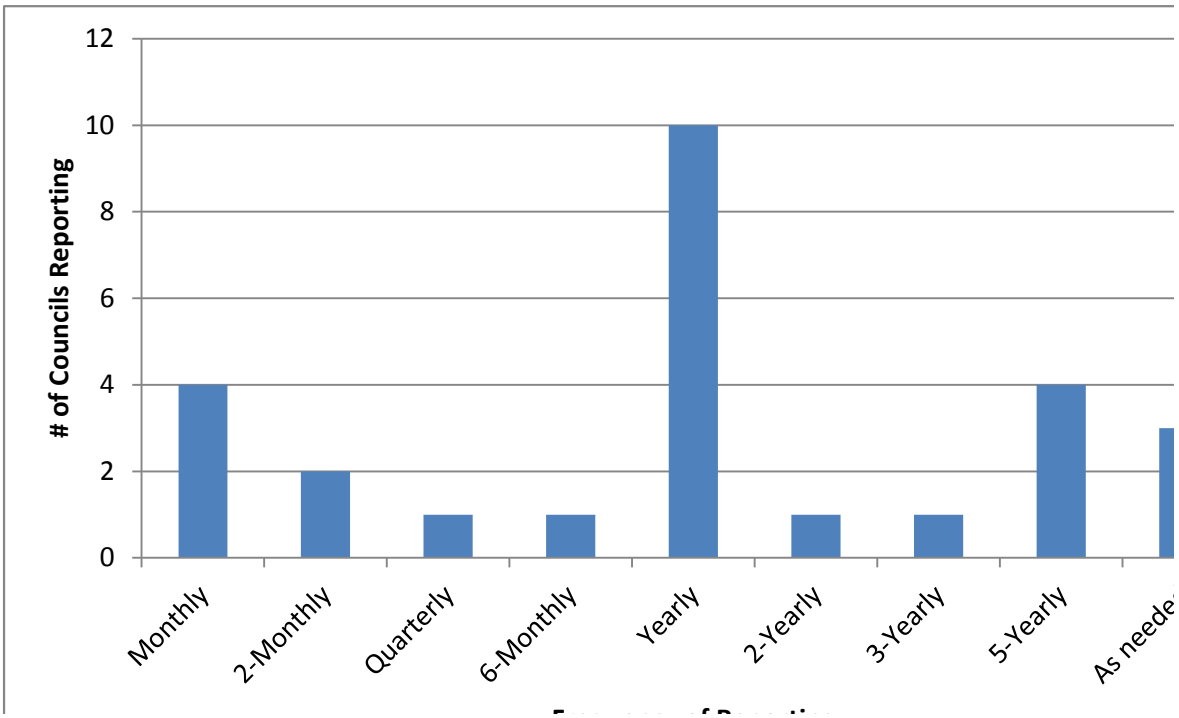


Figure 9: Resource consent frequency of reporting

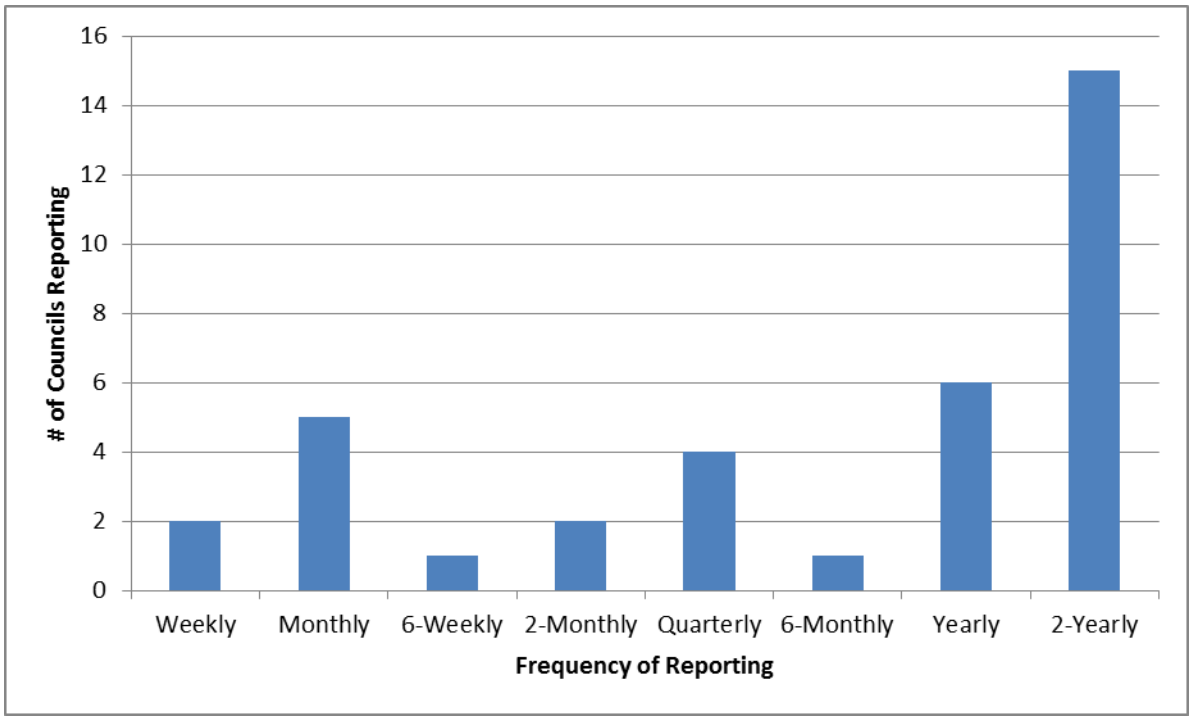
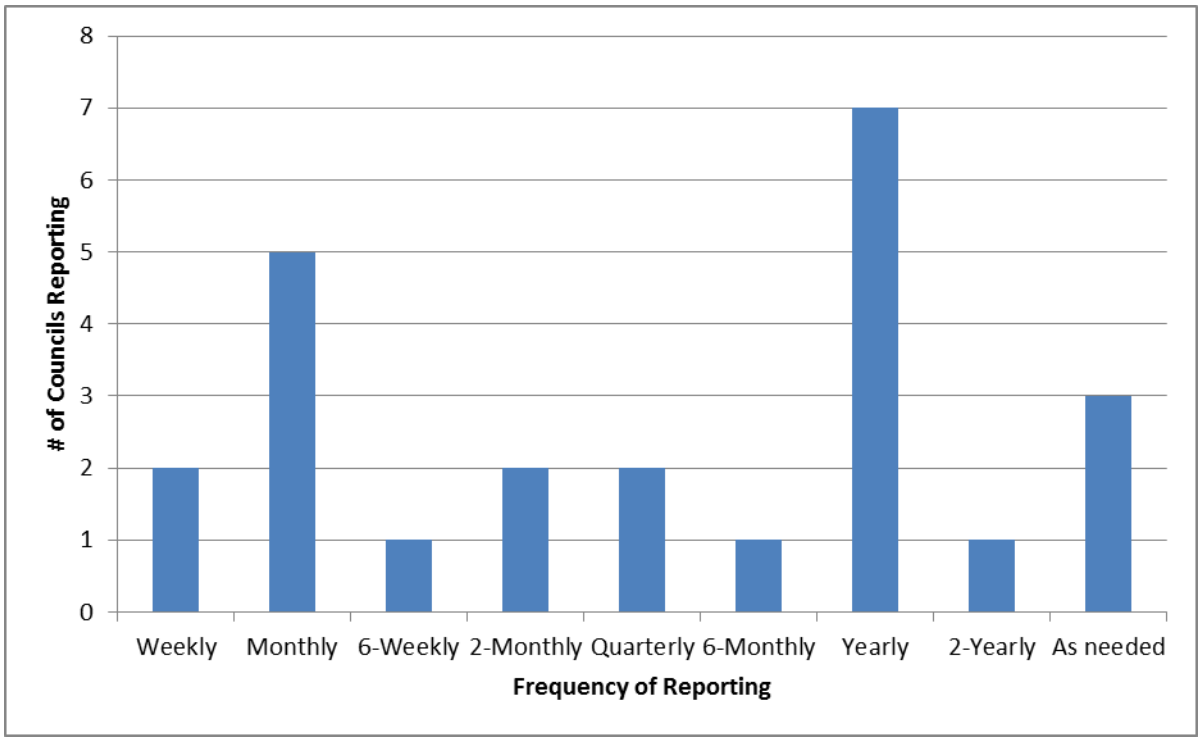


Figure 10: Compliance and enforcement frequency of reporting



Annual reports under the Local Government Act and the Ministry for the Environment's RMA Survey of Local Authorities appear standard points for reporting.

SOE monitoring for regional councils is consistent in accordance with RMA rules; however this SOE reporting is irregular for territorial authorities. Information is mainly reported for internal uses, but some information (especially SOE results) is made publically available and this is typically yearly.

Resource consent reporting is generally compliant with the biennial requirement for the Ministry for the Environment's RMA Survey of Local Authorities. This is the only public reporting some council undertake.

Compliance/enforcement and resource consents data is reported quite similarly across the councils, at multiple intervals. It is generally reported at regular council meetings, and circulated to all relevant parts of the organisation.

Reporting on plan monitoring is not as frequent, and generally arises only when a plan change or review takes place. We were unable to graph any real representation of frequency of reporting. In this regard we noted that findings of the Ministry for the Environment's RMA Survey of Local Authorities (Report 2010/11) which showed that 55 per cent of regional councils, 33 per cent of unitary authorities and 10 per cent of territorial authorities provided a full report over the survey period, as required by section 35(2A) of the RMA.

There is also a variety of SOE reporting occurring. On the whole, written yearly reporting is the preferred method, but we also saw snapshots and report cards.

Q22 - Strengths and weaknesses of systems?

Both strengths and weaknesses of the councils' systems have been noted. Weaknesses can include the inaccuracies caused by human input; that systems are designed for quantitative reporting and not qualitative; and that often there is a lack of connection between what is stored/analysed/reported on and any long-term strategy which identifies desired outcomes. Some councils are more satisfied than others with the outputs created by their systems in producing effective reporting. Unsatisfactory systems have the potential to be expensive to upgrade. They also need to be able to be easily altered for new reports. Essentially, the quality and relevance of the data reported on will only be as good as the system that is used.

A significant weakness in the data was standardisation and the inoperability of data.

6.4 What networks are there to support the systems?

Q23 - Is the data and/or reporting freely available? If yes, how?

The vast majority of councils make raw data only available internally due to the potentially sensitive nature of the information. The raw data is typically agglomerated into the form of a report (or update) which omits personal details by reporting the data as a whole. Most of these reports are prepared bi-monthly and are made available on the council website or shared with members of the public on request. All information is ultimately available through the Local Government Official Information and Meetings Act 1987 via a formalised information request.

In some cases the raw data is made publically available, however, this only occurs for data related to the SOE monitoring function. Data sharing can occur through database (e.g. Data Online for the Auckland Council), live monitoring on the website (e.g. Bay of Plenty Regional Council and Environment Canterbury) or in depth reporting. This level of transparency of raw SOE data is in general exhibited only by regional councils.

The Land and Water New Zealand (www.landandwater.co.nz) website brings together a wide range of information from regional and unitary councils. The first natural resource information available is about water, providing information about the current state of fresh water in regions around New Zealand. Information on land and air is to follow.

Q24 - Is the data and/or reporting shared and with who? If so what? How? How often?

For resource consents, compliance/enforcement and plan/policy the reports that are informed by the raw data are typically prepared for internal use and are only shared automatically with council staff, appropriate team leaders/managers and councillors. Some councils choose to share the reports with the public via the council's website or the media. Virtually no other formalised information sharing takes place, except for information sharing with the Ministry of the Environment through the Biennial Survey (which in turn is made publically available). There are few exceptions to this (see Horizons Regional Council – compliance/enforcement and Southland District Council - SOE).

For SOE data however, there are multiple cases of data sharing arrangements with organisations like other local and regional councils, non-governmental organisations, national research institutes (e.g. NIWA), the Ministry for the Environment, Department of Conservation, universities or other interest groups (like iwi, co-management groups or power generation companies). Data is typically shared through individual datasets or via shared databases (e.g. Hilltop, Caddis, IRIS, or GNS). Greater Wellington Regional Council, Waikato Regional Council and Environment Canterbury share data on the data.govt.nz website. Data and information is occasionally shared through conferences, presentations and special interest groups.

Q25 - Are there any access agreements for data sharing? Do you have a database which is compatible with another utilised by an alternative agency?

With exception to the SOE council functions, almost no data sharing agreements exists and only a few councils share data through mutually compatible databases (Hilltop, NCS, IRIS and Tech1). The need for a database that is universally compatible that pulls together data from numerous councils is mentioned repeatedly throughout the stock take.

The SOE function has a number of examples of formal access agreements with organisations like non-governmental organisations, national research institutes (primarily NIWA and Met Service), the Department of Conservation and Land Information New Zealand.

16 councils have also agreed to share information on the Land and Water New Zealand website (www.landandwater.co.nz).

Q26 - Are there agreed governance arrangements for managing the data or reporting? (eg. with councils, with iwi, industry, Government)

Few formalised data management governance agreements exist. In some instance councils have reported having governance agreements in place with other councils for data involved with national monitoring programs. Some governance agreements with iwi exist for some SOE data sets.

6.5 What does this all cost?

Q 27 - What are the approximate or known costs of data collection, holding, managing, manipulating, reporting and sharing? (e.g. in annual reports or for specific projects)

The vast majority of responses simply indicated that the costs were unknown or difficult to disaggregate from other council activities. Those who did manage to answer the questions

generally did so in a very non-specific manner either by giving an estimation or a range. From the answers given, the cost of monitoring varied extensively with some smaller councils stating that monitoring costs were minimal or insignificant (this was most common under the policy/plan function). In some cases the costs were millions of dollars. Generally, SOE monitoring was the most expensive monitoring function conducted (e.g. Waikato Regional Council and Auckland Council stated their SOE monitoring exceeded $10 million annually).

7 Findings – overview of councils by monitoring activity

There is a clear divide between the monitoring effort of small and large councils (reflecting budgetary resources available), and between small territorial authorities and regional councils (reflecting monitoring of natural processes and the monitoring needs of natural resources). Our investigation included only two unitary authorities and we cannot make clear conclusions about the differences between unitary and non-unitary councils.

For the majority of councils the level of strategising undertaken regarding RMA monitoring was limited to the Long Term Planning processes under the Local Government Act 2002, or within the mandatory requirements of the district and regional plan (an option inclusion from ss 67(2)(e) and 75(2)(e) of the RMA. For larger councils (who were perhaps better resourced) more comprehensive frameworks were presented.

Monitoring of functions did not occur. Consents monitoring of processes was the strongest monitoring function. Plan and policy monitoring was in relation to the plan development cycle. SOE monitoring was more prevalent in regional councils.

7.1 Functions monitoring

Section 35 of the RMA requires councils to monitor the exercise of any powers, functions or duties delegated or transferred by it. The Needs Analysis identified that councils would have monitoring in place for monitoring their functions (such as transfer of powers under s33 of the RMA or delegations of functions or powers under ss34 and 34A of the RMA).

No monitoring of functions was identified by any of the councils we surveyed. This was of a surprise to us, given the RMA requirements for such monitoring. We have reviewed the way we asked for this information for councils. We are clear that we did ask for information about what monitoring the councils did of ss 34 and 34A of the RMA.

The Ministry for the Environment's RMA Survey of Local Authorities identifies that 38% of councils monitor function and 26% report on them.

7.2 Resource consents / designations monitoring

A significant innovation was occurring at the regional council level with the development of the IRIS database system by regional councils (Northland Regional Council, Waikato Regional Council, Horizons Regional Council, Taranaki Regional Council, West Coast Regional Council and Environment Southland). This looked promising for those involved in providing an integrated system. Waikato Regional Council was investing heavily in the system.

The Ministry for the Environment's RMA Survey of Local Authorities significantly influenced the nature of information collected. Most councils designed their systems and collected data to fulfil the survey requirements and reported information publicly through this survey. More regular public reporting of consents activity was not conducted, although there is the potential for it to be undertaken. An example of this is illustrated in Figure 11. It is a fair conclusion therefore that the perceived mandatory nature of the RMA Survey of Local Authorities oriented councils to this task. Anecdotally we were also told that the Resource Management Act Discount Regulations 2010 were now a significant influence on consent processing information.

There are few off-the-shelf systems for consents monitoring. Most systems had been adapted to meet individual council's needs. Two of the territorial authorities survey have opted for Tech 1 as a database and some regional councils are moving to the integrated IRIS system.

7.3 Plan / policy statement (including change or variation) monitoring

The tendency was for territorial authorities to undertake more plan monitoring than regional councils. Regional councils focus was on SOE monitoring to fulfil the role of plan monitoring. Smaller councils do limited or no monitoring.

There are concerns from councils that existing and proposed national policy statements, national environmental standards and co-governance agreements will require additional monitoring and reporting of land and water resources, increasing costs to the councils.

We identified a number of examples of good practice in plan evaluation, for example, the Wellington City Council plan effectiveness report in 2006 is still a good benchmark for the public interface.[14] They also undertake resource consent reporting to inform the district planning monitoring programme (see Figure 11).

We considered that overall the nature of monitoring was well intended in district and regional plans, but tended to be reflective of council resourcing and potentially related to the plan development cycle (although we collected no information on the state of plan development in councils).

Figure 11: Monthly monitoring information on resource consents from Wellington City Council

District Plan Monitoring Programme

MONTHLY MONITORING AND STATUS REPORT FOR MONTH OF FEBRUARY 2012

Resource Consents

Basic Statistics

Land-use consents lodged (month)	49
Subdivision consents lodged (month)	9
Combined land-use / subdivision consents lodged (month)	7
Total	**65**

Consents Granted by Broad Activity Type

Residential (all)	23
Subdivision	12
Earthworks	4
Central Area (all types)	4
Heritage	2
Multi-unit	1
Encroachments	1
Earthquake strengthening	1
Other	8

7.4 Compliance / enforcement monitoring

Most large councils have in place a compliance monitoring strategy. Compliance monitoring was undertaken for several reasons:

- Raises awareness with consent holders and land users about the level of environmental management that is required

[14] See http://www.wellington.govt.nz/plans/district/pdfs/shapingup2006.pdf

- Allows councils to detect where activities might be adversely affecting the environment and to take action to remedy and mitigate those effects, through:
  - Advice and education
  - Informal warnings
  - Formal written warnings
  - Statutory notices, such as Notice to Rectify, Excessive Noise Notices, Nuisance Notices, Abatement Notices
  - Enforcement orders
  - Infringement notices
  - Prosecution
- Gives assurance to communities that the management framework they were consulted on is being upheld
- Ensures that the rules and conditions are upheld for all resource users.

Targets for compliance monitoring were set within the Long Term Plans. Response issues (rather than state) dictated monitoring in smaller councils.

Data management was limited and in many cases indicators were driven by the Ministry for the Environment's RMA Survey of Local Authorities.

In our discussions we noted mention of the Compliance and Enforcement Special Interest Group, which is a group of staff from a number of regional councils who work on compliance and enforcement. As we understand this group has been working to bring more consistency to how regional councils classify non-compliance and significant non-compliance, so that non-compliance rates can be compared.

7.5 SOE monitoring

All councils undertook SOE monitoring, but it was more prevalent as an action in regional councils than in territorial authorities. Regional councils also tended to have a strategy or framework under which they undertook their SOE monitoring. Small territorial authorities tended to rely on regional council information about the state of their natural environment.

Each council decides itself what to monitor and how to monitor it. The indicators varied and there was a general inconsistency in the nature of data collected and the systems used to store and report SOE monitoring. Despite the Ministry for the Environment producing 22 indicators there is still some variation in how the data is collected and reported.

Hilltop was a common system to store data. SOE reporting typically occurred on an annual basis, but there appears greater use of live data too. This is more prevalent where there is little analysis to be undertaken. Examples of this are: river flows, rainfall, swimming water quality, air pollution, wave buoys.

Long Term Plans were seen as key drivers to determining the level of SOE monitoring the Council undertook. The linkages to the Local Government Act processes are therefore significant and hence the survey process for this study was hindered, as a result of councils being part way through those processes.

Appendix 1

Summary of the Needs Analysis Report

	Other Functions		Resource consent/ designation		Plan/Policy statement (incl change, variation)		Compliance/Enforcement		SOE Monitoring	
	Process/output	**Monitoring Measure**	**Process/output**	**Monitoring Measure**	**Process/output**	**Monitoring Measure**	**Process/output**	**Monitoring Measure**	**Process/output**	**Monitoring Measure**
Ministry for the Environment (MfE)	Monitor relationship of functions powers and duties of central and local govt s24(g)	Quantitative survey - time and cost Feedback - central govt, local govt, iwi (Treaty settlement feedback), industry			Directing local authorities to prepare plan, plan change, or commence review s25A	Quantitative survey - number of formal directions Plan content - qualitative assessment Plan change notices related to a direction			Monitor significant environmental issues s24(ga)	Issue evaluation - qualitative assessment of nature, outcome Quantitative survey - number and type of investigations undertaken
	Monitor use of economic instruments s24(h)	Plan content - qualitative assessment			NES process s43	Quantitative survey - cost and time information Feedback eg industry, councils, iwi, NGOs				
	Investigate local authorities performance under Act s24A	Investigations - qualitative assessment of nature, outcome Quantitative survey - numbers of investigations Performance of local authorities - qualitative assessment Feedback eg via formal Treaty settlement feedback mechanisms			NPS process s46-46A, 47-52	Survey - timing of key process milestones Quantitative survey - cost and information Feedback eg submitters, Board of Inquiry, local authorities				
	Residual powers of Minister s25	Performance of commissioners - qualitative assessment Feedback from council staff, public, related councils								
	Require local authorities to supply information s27	Quantitative survey, number of times power used Use of power - qualitative assessment of information required and local authority response								
	Delegation of Minister powers to MfE s29	MfE records - delegations register MfE records - risk register Feedback - Minister								
	Minister can intevene in matter of national importance s142, 149ZA	EPA records - quantitative data, Outcome/decision - qualitative assessment Feedback - applicants, local authority								
	Joint management agreements (JMA) s36B	Records - JMA notices JMA - qualitative assessment Quantitative survey - time and cost								
	Regulations s360	Quantitative survey - time and cost, numbers / types Feedback - affected parties and local authorities Outcome compared to other approaches - qualitative assessment								
	WCO s199-217	Quantitative survey - time and cost, numbers / types Feedback - affected parties and local authorities Outcome compared to other approaches - qualitative assessment								
Environmental Protection Authority (EPA)	Minister can intevene in matter of national importance s142, 149ZA	EPA records - quantitative data, Outcome/decision - qualitative assessment Feedback - applicants, local authority								
	EPA s42B-42D	Investigation - performance Feedback Decisions outcome - qualitative assessment								
	Requests for call in s141A-147	Quantitative survey - types of call-in, topics Feedback - EPA eg workability of process								
	Submissions and hearing s149E, 149L	Consent process - qualitative assessment of influencing factors Quantitative survey - timeframes and cost								
	Relationship between EPA and local authority Part 6AA	Feedback on process - local authority, applicant, other parties								

	Other Functions		Resource consent/ designation		Plan/Policy statement (incl change, variation)		Compliance/Enforcement		SOE Monitoring	
	Process/output	**Monitoring Measure**	**Process/output**	**Monitoring Measure**	**Process/output**	**Monitoring Measure**	**Process/output**	**Monitoring Measure**	**Process/output**	**Monitoring Measure**
	Decisions s149P-R	Consent decisions - qualitative assessment Feedback on process - BOI, local authority, applicant, other parties								
	Appeals s149V	Court decisions - outcome Quantitative survey - appeal numbers								
DoC	Ministers powers in relation to NZCPS, CMA and regional coastal plans s28	Quantitative survey - time and cost Quantitative survey - number of requests Plan change content - qualitative assessment								
Other govt departments	Monitor relationship of functions powers and duties of central and local govt s24(g)	Quantitative survey - time and cost Feedback - central govt, local govt, iwi (Treaty settlement feedback), industry								
Local authorities	Transfer of powers and functions s33, 34	Survey - use of power, nature of transfers Quantitative survey - Number of transfers notified to Minister	Regional council and Territorial authority functions s30 and s31	Plan content - Qualitative assessment Consent decisions - qualitative assessment Investigation into performance of local authority - assessment of outcome Feedback - local authorities, govt depts, iwi authority through Treaty settlement monitoring and feedback provisions	Regional council and Territorial authority functions s30 and s31	Plan content - Qualitative assessment Consent decisions - qualitative assessment Investigation into performance of local authority - assessment of outcome Feedback - local authorities, govt depts, iwi authority through Treaty settlement monitoring and feedback provisions	Regional council and Territorial authority functions s30 and s31	Plan content - Qualitative assessment Consent decisions - qualitative assessment Investigation into performance of local authority - assessment of outcome Feedback - local authorities, govt depts, iwi authority through Treaty settlement monitoring and feedback provisions	Monitor significant environmental issues s24(ga)	Issue evaluation - qualitative assessment of nature, outcome Quantitative survey - number and type of investigations undertaken
	Statutory acknowledgements processes s95E and sch 11	Consent decision - qualitative assessment of consideration of stat acknowledgement	Waiver and extension of time s37	Quantitative survey - number of extensions, length of extensions decisions on extensions - qualitative assessment	Consideration of alternatives, costs, benefits s32	s32 reports - qualitative assessment plan change content - qualitative assessment	Enforcement powers Part 12	Court proceedings - numbers Feedback - local authorities re workability or barriers Quantitative survey - levels of compliance Council policy - enforcement	Monitoring and reporting by local authorities s35-35A	Plan effectiveness reports - qualitative assessment Survey - monitoring activity SOE report - qualitative assessment Quantitative survey - time and cost
			Hearings s39	Feedback - hearing parties, accredited commissioners Decisions - qualitative assessment Quantitative survey - numbers of hearings where independent commissioners requested Council policy - hearing committees	RMA policy statements and plans s35, 59-77	Plan content - qualitative assessment Quantitative survey – time/ cost information Consent decisions - qualitative assessment of link between decision and obj/policy Quantitative survey - numbers of plan changes Plan effectiveness reports - qualitative assessment Feedback - on plan outcomes and on timing of rules having effect	Declarations s310, 313	Court proceedings - nature of parties and offence Court decision - declarations	Administrative charges and discounting s36 - 36AA	Charging and discounting decisions - qualitative assessment Survey of numbers
			Consent application Part 6	Quantitative survey - types of consent, topics for consent Consent decisions - qualitative assessment Application quality - qualitative assessment	Process to develop RMA policy statements and plans	Qualitative survey - processes for securing stakeholder agreement, including cl3 consultation Quantitative survey - timing for plan changes and cost of plan changes Investigation - factors influencing time/cost	Enforcement orders and abatement notices s314-319, s322-325	Court decisions - outcome		
			Application process Part 6	Feedback on process - local authority and applicant Quantitative survey - time and cost to local authority and applicant	Clause 3 - Consultation	Plan change qualitative assessment - consultation type and influence	Prosecutions for offences under the RMA s338-343	Court proceedings - nature of parties and offence Court decision Feedback - local authorities re nature and reasons for this approach		
			Consent decisions s104-104D	Consent decision - qualitative assessment of influencing factors, part of objectives and policies, any link to process Feedback on process - local authority and applicant	Clause 5 – Public notice and provision of document to public bodies	Plan content - assess themes of plan change topics, assess influence of step to consult with Minister Quantitative assessment - time and cost for MfE involvement / response	Excessive noise s326-328	Quantitative survey - number of directions issued Feedback - local authority re noise control outcome		
			notification s93-103	Quantitative survey - notification numbers Court decisions on notification	Clause 14 and Clause 27 Appeals	Decisions - qualitative assessment of influence of court on outcome, and nature of influence Quantitative survey - number of appeals, number resolved through mediation, timing of plan changes through appeal process and impact on total time of plan change, costs for local authority for appeal process	Emergency works s330 - 331	Quantitative survey - number of times powers used Feedback - local authority re process and outcome		

	Other Functions		Resource consent/ designation		Plan/Policy statement (incl change, variation)		Compliance/Enforcement		SOE Monitoring	
	Process/output	Monitoring Measure	Process/output	Monitoring Measure	Process/output	Monitoring Measure	Process/output	Monitoring Measure	Process/output	Monitoring Measure
			Appeals s.120 (also s.358 appeals)	Court decisions - outcome, qualitative assessment	Control influence of trade competitors in RMA processes s308A-308I	Court decisions re trade competition - qualitative assessment Feedback from parties	Environment court functions and procedures s269-298	Court decisions - qualitative assessment Quantitative survey - numbers, case load, timeframes, fees and costs Feedback from parties		
			Heritage orders s187 – 198	Quantitative survey - time and cost, numbers / types Feedback - affected parties and local authorities Outcome compared to other approaches - qualitative assessment			Administrative charges and discounting s36 - 36AA	Charging and discounting decisions - qualitative assessment Survey of numbers		
			Designations and Notice of Requirement s168-175	Quantitative survey of numbers - applications for RA and NOR, number of appeals Feedback from RA and NUO and local authority Quantitative survey of time and cost info NOR decisions - qualitative assessment of outcome						
			Outline Plan s176A	Performance of RA - qualitative assessment Feedback on process, time and cost - RAs and local authorities OPW decisions - qualitative assessment of outcomes of OPW process						
			Requiring Authority s167	Performance of RA - qualitative assessment Quantitative survey - number of applications Feedback - Ras and local authorities						
			Control influence of trade competitors in RMA processes s308A-308I	Court decisions re trade competition - qualitative assessment Feedback from parties						
			Monitoring of effectiveness s35	Evaluations/surveys						
			Administrative charges and discounting s36 - 36AA	Charging and discounting decisions - qualitative assessment Survey of numbers						

Appendix 2

IRIS – Integrated Regional Information System

(Source Waikato Regional Council)

IRIS (Integrated Regional Information System)

Project Outline

The Integrated Regional Information System project (IRIS) will create a core business application for regional government organizations in New Zealand, which are charged with management of the environment and resources in compliance with NZ legislation and regulations.

The IRIS system will comprise a set of regional council-specific business modules covering the business areas of Consents, Compliance and Environmental Monitoring, Biosecurity, Biodiversity, Land Management, Contacts, Request for Service, Environmental Results, and RMA Plan Submission Consultation. Each of these processes are underpinned by core information on citizens/ratepayers/customers, property and land/geography.

As no existing software package meets requirements to support these regional council-specific functions, the factors driving the participating councils to initiate a collaborative process to develop software include:

- Ensuring continuity of supply by partnering with a proven software developer,
- Influencing / controlling the destiny of regional council sector specific software,
- Risk reduction through working collaboratively,
- Management of costs through economies of scale,
- Improvement in business processes through, where possible, standardisation of practice and convergence towards adoption of best practice, across regional councils.

The IRIS framework design will be implemented using a Microsoft product set. IRIS will be developed collaboratively by Datacom working with a number of participating regional councils acting as the Regional Council Collaborative Development Group (RCCDG). The system will be deployed to each participating council individually. Each participating council will deploy the core IRIS modules, any additional modules required for their individual needs, and implement systems interfaces required to integrate with existing 'back-office' systems (e.g. Financials, GIS, EDRMS).

IRIS Background

The concept of Regional Councils (RCs) working together to secure a common system to support core Regional Councils business was voiced and supported at various forums within the RC community, including the Regional CEO forum, the CFO forum, and the IT Managers Forum. It has also been a topic of interest and discussion at the Resource Managers Group.

There is precedent of a loose collaboration of six councils during the last 10 years. However that collaboration was more tactical than strategic and could not address strategic issues when a significant capital injection was needed to replace the underlying software platform.

Individual investigations carried out by various RCs in the two years prior to the issuing of the RCCDG Request for Proposals determined that there was no satisfactory modern and proven RC software solution that was currently available "off the shelf". Packages needed a high degree of development and modification to meet RC specific needs.

At a meeting of CFOs and IT Managers hosted by Environment Canterbury in October 2007, ten Regional Councils agreed to jointly go to market to determine the viability of a collaborative development approach for those aspects of RC business that were unique to RCs. From the outset the expectation was that whilst all councils were working collaboratively at that stage, following the process each council was free to determine the applicability of the group solution to their individual council.

As the result of a robust and thorough investigative process, participating councils could not find a package that would meet their needs. The group assessed options of modifying an existing package

through to bespoke development. The recommendation of the group was to proceed with Datacom Systems for the development of an application known as the Integrated Regional Information System (IRIS). The Datacom proposal was judged the most cost effective and lowest risk, with a proven track record for solution delivery.

Subsequently six Regional Councils have committed to the IRIS application development: Northland Regional Council, Waikato Regional Council, Horizons Regional Council, Taranaki Regional Council, West Coast Regional Council, Environment Southland.

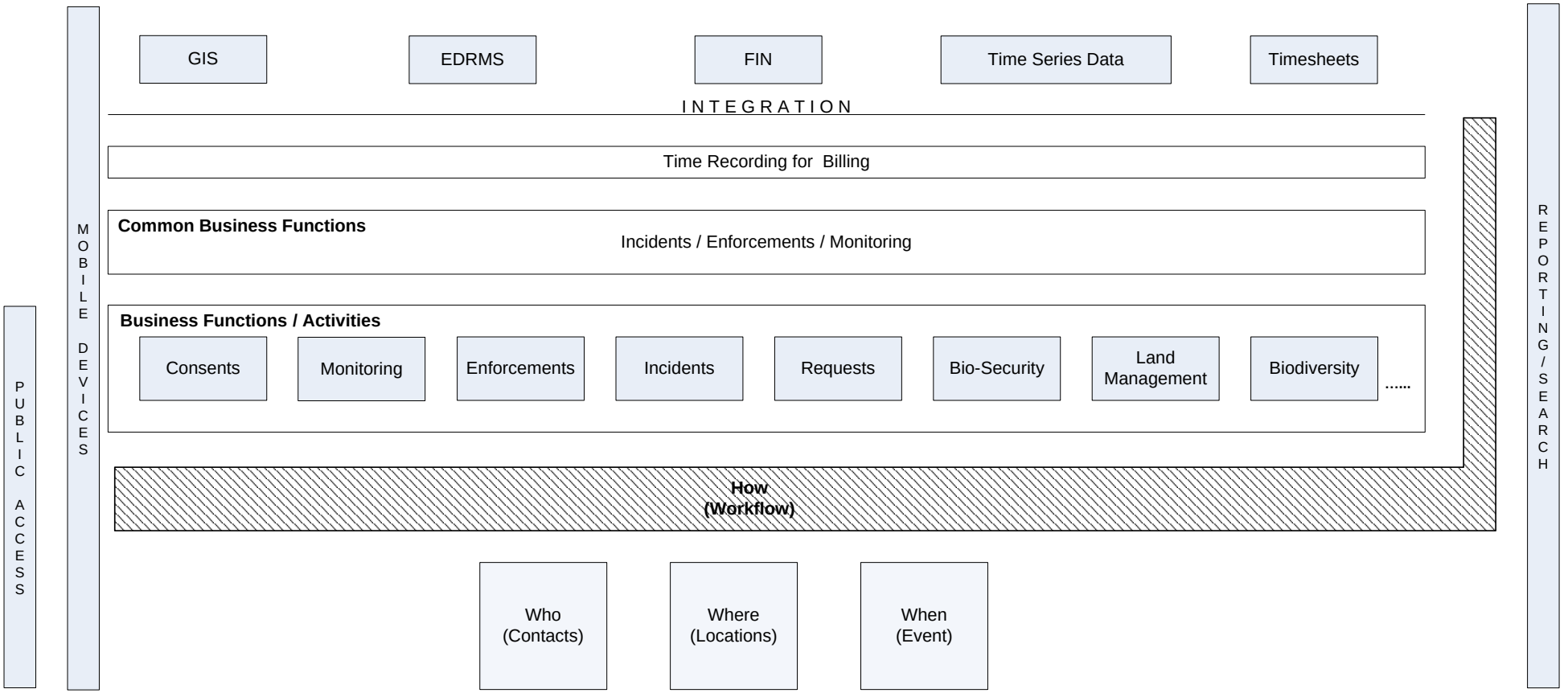
IRIS Scope

The following table gives a brief description of the business activities and areas of integration with Council systems agreed to be in scope.

Business Activity	Areas of Integratation
Biodiversity	Records the identity and information recorded about native plants, animals and their habitats possibly under threat from human activities and encroachment.
Biosecurity	Bio-security information and inquiry system supporting the capture and monitoring of plant pest infestations in accordance with the Bio Security Act and Regional Pest Management Strategy and enquiries in relation to pest infestations. In some RCs this module will be used by internal staff and in other cases it would be used by a group of external agencies and individuals who contract pest management services to the RC.
Contacts	A single name and address register is required. All attributes related to supporting an RC's ability to contact and interact with Customers, Stakeholders, Ratepayers etc are expected to be able to be maintained.
Dams	Process applications for Dam Building Consents, and monitor, in accordance with the Building Act. Maintain register of Dams in the Region.
Customer Service (called "Requests" in this document) – Requests for Service, Enquiries, Complaints, Incidents	The ability to capture, track and manage requests for service and resultant actions – includes enquiries, complaints, incidents and other interactions between an RC and a Contact. Incidents encompass Environmental, Bio Security and Maritime incidents.
EDRMS (Integration)	Some RCs require support for document and records management, whereas other RCs have implemented 3rd party software with which IRIS will be expected to be integrated. Documents include any digital object for example a scanned item, a word file, a spreadsheet, a photo, a sound file, a movie etc.
Enforcement	RC's carry out enforcement activities for example in relation to resource consent monitoring, pest control and navigational safety. An enforcement module must enable the identification of the offence, the individual who is responsible for the offence and the action taken. Recording of incident inspection, assessment and validation; decisions on the breach (directive/punitive) and remedial actions are required. Interfaces with Ministry of Justice for electronic lodgment of infringement notices.
Environment Grant Management	Supporting the processes for receiving, processing and responding to and monitoring applications for funding for environmental activities in the community.
Environmental Data / Test Results	Capture of test results associated with business activities.

Business Activity	Areas of Integratation
	Data may be captured in a variety of ways, for example automatically via electronic loggers, sampled manually as part of a monitoring programme, and provided by Consent Holders.
Financials (Integration)	IRIS will be required to interface with RC's existing Financials system.
GIS (Integration)	IRIS is expected to be integrated with RCs existing GIS.
Land Management	Support the provision of planning and advisory services to property owners in the form of a Farm Plan developed for their property.
Locations	Support recording of information in relation to 'where' an activity occurs. It may be on, above or under land or water. This information is critical for the connection to GIS systems and will facilitate the spatial display and querying of IRIS activates and/or objects. Additional information relevant to the location such as site accessibility and Health & Safety information can be also recorded. A location may have many features, representing any combination of points, lines or polygons in the spatial context.
Maritime	Supporting the processes associated with processing applications for registration of personal watercraft and consents for moorings and ensuring that these are maintained.
Time Recording	Provide a facility to record time units per day for each officer against project activities based on their contracted hours.
Passenger Transport	Registration and management of applications from public passenger transport operators.
Property/Valuation Data Management	Storage of property and land valuation (DVR) information including facility to receive and process data updates from external sources (e.g. TAs) in QV EDE+ or new XML format.
Regulatory – Consents, Permitted Activities, Monitoring, Enforcement	For consent and permitted activity processing the ability to: ■ manage both the application process and the life cycle of resource consents in accordance with the timeframe required by the RMA / Building Act, ■ provide reporting functionality for consent applications in terms of RMA / Building Act processing timeframes, ■ store details of Applications, Resource Consents, Permitted Activities and registration of personal watercraft, ■ store application attributes including industry sector, consent types and subtypes, ■ allow multiple types of application against a resource consent, ■ support the requirements of the Resource Management Act (RMA), Building Act and relevant bylaws. For monitoring the ability to: ■ access all Consent data to monitor compliance at the appropriate level (site, consent, condition etc), ■ scheduling and recording of inspections to allow for optimisation of routing and assignments, ■ enable accurate charging for all services giving full project accounting capability, ■ capability to manage large numbers of environmental readings taken across multiple sites and long periods is

Business Activity	Areas of Integratation
	required. Sites may be independent or relate to a consent record, ■ electronically receive, store, and report on results from external agencies and consent holders is required.
Reporting	Any user of IRIS is able to easily access and report upon information stored by any portion of the system – to which they have the appropriate access.
Search	Provide a flexible and intuitive function to assist users to find IRIS activities quickly and easily. Searches can be made by entering flexible criteria into any of search fields. Searches can be textual or spatial to support the context of being able to identify all interactions associated with an activity, a person or a location.
Selected Land Use Sites	Allows for the investigation and recording of a register of land (locations) identified as contaminated as prescribed in the RMA and management of such locations (sites) in accordance with MfE guidelines.
Submissions Tracking and Community Engagement	RCs receive submissions on Resource Consents and on Policies/Plans/Strategies and Variations they produce such as the Annual Plan, the LTCCP, the Regional Plan, the Regional Pest Management Strategy etc. Information about submitters, the submissions received, and that supporting the consultation and decision making processes needs to be captured. The function will enable the RC to be more effective and efficient in preparing information for consultation, making recommendations and reporting.
Task List	A list of things that are assigned to the logged in officer for action, listing the status (priority) of the task. Tasks can be related to any activity or could be workflow or manually initiated. Tasks can be classified by their features, and are used by the user to help plan workloads. Overdue tasks can be escalated for attention and reminders (notifications) can be initiated from tasks.
User Set Up	Provides an ability to setup user accounts for the IRIS system, to support their use of the system, and associate the user with an IRIS ‘role’ and/or security group. Integration with the RC’s Active Directory accounts is site configurable.
Workflow	Workflow processing is required in all areas, configurable by staff with appropriate privileges. Essentially a series of stages and/or actions which must be completed in a prescribed sequence within a defined time frame. All workflow must allow reminders and escalation (email notification) for actions and/or stages, using configurable custom calendars and triggered by configurable values in relation to a due date. The ability for links with documents is required (staff reports, photos, issues, consent etc).


PUBLIC ACCESS
MOBILE DEVICES
GIS
EDRMS
FIN
Time Series Data
Timesheets
INTEGRATION
Time Recording for Billing
Common Business Functions
Incidents / Enforcements / Monitoring
Business Functions / Activities
Consents
Monitoring
Enforcements
Incidents
Requests
Bio-Security
Land Management
Biodiversity
.....
How (Workflow)
Who (Contacts)
Where (Locations)
When (Event)
REPORTING / SEARCH