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# Indicator M13: Threatened species habitat: number and status of threatened species impacted by consents

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*Prepared for:*

## Regional Councils' Biodiversity Monitoring Working Group

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# Contents

## Overview

In 2010, the Technical Group of the Regional Council Biodiversity Forum worked with Landcare Research to develop the Regional Council Terrestrial Biodiversity Monitoring Framework.[1]

This framework is designed as part of 'a national, standardised, biodiversity monitoring programme, focusing on the assessment of biodiversity outcomes, to meet regional council statutory, planning and operational requirements for sustaining terrestrial indigenous biodiversity'

The terrestrial biodiversity monitoring framework adopts the same approach as the ecological integrity framework designed by Landcare Research for the Department of Conservation (DOC) and consists of three components: (i) indigenous dominance, (ii) species occupancy, and (iii) environmental representation.[2] To inform the framework, there are four broad areas: (i) state and condition, (ii) threats and pressures, (iii) effectiveness of policy and management, and (iv) community engagement.

A standardised monitoring framework ensures that data for each measure are consistent among regional councils, which allows for reliable State of Environment reporting. Furthermore, to enable national reporting across public and private land, it is also desirable that where possible, measures can be integrated with those from DOC'sBiodiversity Monitoring and Reporting System (DOC BMRS).[3] The monitoring framework covers most categories of essential biodiversity variables[4] recommended for reporting internationally, addressing species populations, species traits, community composition, and ecosystem structure adequately, but does not address genetic composition and only in part ecosystem function.

This report contains descriptions of 18 terrestrial biodiversity indicators developed within this framework by scientists who worked with regional council counterparts and representatives from individual regional councils. Each indicator is described in terms of its rationale, current efforts to evaluate the indicator, data requirements, a standardised method for implementation as a minimum requirement for each council, and a reporting template. Recommendations are made for data management for each indicator and, for some, research and development needed before the indicator can be implemented.

The terrestrial biodiversity indicators in this report are designed to enable reporting at a whole-region scale. Some of the indicators are also suitable for use at individual sites of interest within regions. Each indicator is described in terms of a minimum standard for all

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[1] Lee and Allen 2011. Recommended monitoring framework for regional councils assessing biodiversity outcomes in terrestrial ecosystems. Lincoln, Landcare Research.

[2] Lee et al. 2005. Biodiversity inventory and monitoring: a review of national and international systems and a proposed framework for future biodiversity monitoring by the Department of Conservation. Lincoln, Landcare Research.

[3] Allen et al. 2013. Designing an inventory and monitoring programme for the Department of Conservation's Natural Heritage Management System. Lincoln, Landcare Research.

[4] Pereira et al. 2013. Essential biodiversity variables. Science 339, 277–278.

councils. If implemented by all councils, each measure can then be aggregated to allow national-scale reporting (e.g., for State of Environment reports, or for international obligations such as reporting on achievement of Aichi Targets for the Convention on Biodiversity). Individual councils could add additional measurements to supplement the minimum standards recommended.

Three of the 18 terrestrial biodiversity indicators – Measures 1 'Land under indigenous vegetation', 11 'Change in temperature and precipitation', and 18 'Area and type of legal biodiversity protection' – were implemented and reported on for all regional councils in June 2014. An attempt to implement and report two others at that time – Measures 19 'Contribution of initiatives to (i) species translocations and (ii) habitat restoration' and 20 'Community contribution to weed and animal pest control and reductions' – was unsuccessful because the data needed for these indicators was either not readily available or not collected in a consistent way, and investment will be needed to remedy these issues before they can be reported successfully.

# 10 Indicator M13: Threatened species habitat: number and status of threatened species impacted by consents

**Authors: Robert Holdaway and Susan Wiser, Landcare Research**

## 10.1 Overview

Indicator M13 (Threatened species habitat) reports on the number and status of threatened species impacted by consents. This measure complements M5 (Vulnerable ecosystems) because threatened species may be found in ecosystems that are not in themselves vulnerable.

Conceptually, this measure is straightforward to understand. Threatened species and their threat status (e.g. Critically Endangered, Endangered, and Vulnerable) are identified and defined by the Department of Conservation (DOC) using the New Zealand Threat Classification System. The local authority consenting process should consider the presence and potential impact of the proposed activities on threatened species. This measure combines these two data sources to report the number and status of threatened species impacted by consents.

Implementation, however, will be challenging owing to

a) lack of legislation specifying protection of some groups of threatened species (e.g. plants)

b) legal responsibility for threatened species conservation lying outside of the local authorities

c) responsibility for consenting and biodiversity protection residing in different administrative groups within local authorities

d) differences in responsibilities of regional, district, city and unitary councils in administration of the different types of consent applications that may impact on threatened species.

The primary reporting indices for this measure, in order of increasing detail, are:

a) The total number of consents applied for and approved

b) Percentage (and number) of consents approved in the previous year where threatened species were listed as occurring in the area affected by the proposed activity

c) Percentage (and number) of consents approved in the previous year where threatened species were listed as occurring in the area affected by the proposed activity, separated by the maximum potential impact on any one species, designated as low, medium or high

d) Percentage (and number) of consents approved in the previous year where threatened species were listed as occurring in the area affected by the proposed activity having mitigation or monitoring requirements, by maximum potential impact class

e) Percentage (and number) of all consents approved in past years where threatened species were listed as occurring in the area affected by the proposed activity having mitigation or monitoring requirements that are in compliance with these requirements.

## 10.2 Scoping and analysis

### 10.2.1 Introduction

This measure reports on the number and status of threatened species impacted by consents (see Appendix 10-1 for a summary of Biodiversity Working Group decisions on the scope of M13). Indicator M13 is one of a set of measures that indicates the effectiveness of policy and management in protecting biodiversity (Lee & Allen 2011). It is consistent with the 2007 statement of national priorities for protecting rare and threatened native biodiversity on private land (National Biodiversity Priorities) issued jointly by the Ministers of Conservation and the Environment[13]. Although not statutory, this statement provides guidance to local authorities, communities and private landowners about the types of ecosystems and habitats on private land that, from a national perspective, are most threatened and hence in need of protection. National priority 4 is to protect habitats of acutely and chronically threatened indigenous species.

The resource consent process can affect threatened species by permitting (or preventing) a range of activities such as habitat destruction (e.g. vegetation clearance) and alteration of habitat quality (e.g. changes in flow regimes and water quality of rivers). Threatened species are inherently range restricted, sparse where they do occur, or vulnerable to disturbance and human activities (Walker et al. 2006; Townsend et al. 2008; Holdaway et al. 2012). This makes them potentially vulnerable to even localised consented activities.

Conceptually, this measure is straightforward to understand. Threatened species and their threat status (e.g. Critically Endangered, Endangered, and Vulnerable) are identified and defined by DOC using the New Zealand Threat Classification System (Townsend et al. 2008). The local authority consenting process should take into account the presence and potential impact of the proposed activities on threatened species. This measure combines these two data sources to report the number and status of threatened species impacted by consents.

[13] See http://www.biodiversity.govt.nz/pdfs/protecting-our-places-brochure.pdf

### 10.2.2 'Threatened species' definition

The Department of Conservation is responsible for the listing of threatened species at the national level[14]. As stated by DOC 'The New Zealand Threat Classification System's long-term goal is to list all extant species that exist here according to their threat of extinction. The system is made up of manuals and corresponding taxa status lists. The status of each species group (birds, plants, reptiles, etc.) is assessed over a 3-year cycle.' Lists from the 2012–2014 listing cycle pertain to freshwater invertebrates, freshwater fish, bats, frogs, birds, vascular plants and reptiles (Appendix 10-3). Earlier lists provide status assessments for groups not included in the recent cycle (e.g fungi). The DOC measures progress in their requirement to ensure persistence of threatened species through three indicators: extinct species, status of threatened species, and the status of at risk species.

### 10.2.3 Identification of consents involving threatened species

This measure involves the identification of consents that have the potential to impact on threatened species. There are two stages to this. The first stage is identification of the broad categories of consents that may impact threatened species. For example, vegetation clearance could impact on habitat availability for threatened species, and effluent discharge consents could potentially impact threatened fish species. The broad ambit of the Resource Management Act 1991 is likely to make assessment of risk from activity categories difficult in many instances. The second stage is to identify particular consents where the potential to impact threatened species is known. For example, an activity that involves clearance of a wetland that is known to provide habitat for threatened bird species compared to an application to clear a small area of forest that, according to the best current knowledge, does not contain any threatened species when they might be expected to be present[15].

The level of knowledge about a particular site is an important consideration. Information on the distribution of threatened species can be obtained from a variety of sources, such as DOC, regional databases and reports concerning significant natural areas, national collections, the ecological literature or expert knowledge. However, this information is unlikely to be complete and may not specifically relate to the target site. Specific information may exist in ecological assessments done as part of the consenting process or from wider council environmental monitoring,

A lack of data does not necessarily indicate absence of threatened species at a site, but conversely detailed assessments of every location may be impractical. This measure therefore needs to be robust to incomplete knowledge about the distribution of threatened species. The quality of the threatened species data is also important to consider as threatened species are often cryptic and in low abundance and thus could be easily missed by untrained observers.

[14] See http://www.doc.govt.nz/publications/conservation/nz-threat-classification-system/

[15] This therefore accounts for temporary occupation of areas, e.g. breeding grounds.

### 10.2.4 Quantification of the impact of consents on threatened species

Knowing that a consented activity affects an area or location known to contain threatened species does not necessarily mean that the consented activity will *impact* threatened species. Assessment of impacts of activities (or proposed activities) on threatened species are made to varying levels of detail. Impact may be assessed as a simple yes/no, as a categorical variable (e.g. high, medium, or low impact), or quantitatively (e.g. 25% decline in species abundance). Impacts can also be assessed at different stages in the consenting process. *Potential impacts* can be assessed during the application phase or after the consent has been issued while taking into account any mitigating actions (i.e. potential impact assuming mitigation activities occur as planned). *Actual impacts* can be assessed directly but are much harder to capture accurately as they depend on the nature of the consented activity and it actually taking place, potentially confounding factors or ecological processes, and the success of any mitigation measures undertaken.

There are a range of established methods available to assess potential impacts of activities on threatened species. However, standardisation of these methods across consent applications both within and among local authorities is a significant challenge. Standardised impact assessment categories (or categories that are robust to methodological variation) are essential for reporting this measure at a national scale.

### 10.2.5 Reporting frequency

Due to the continuous nature of the consenting process and the inherent vulnerability of threatened species, indices associated with consent approval should be reported on an annual basis. Indices relating to on-going compliance with mitigation or monitoring requirements are likely to be more data intensive and should be reported every 2–5 years or as the data become available.

### 10.2.6 Roles and responsibilities

A challenge with both developing and implementing this measure is the different roles and responsibilities among local authorities and DOC, between different types of local authorities (regional councils, territorial authorities (i.e. district and city councils), unitary authorities) and between different departments or divisions within each local authority.

Assessing the potential impact of a consented activity on threatened species requires specific expertise and is covered by more than one statutory mandate. Councils do not have specific responsibility for the protection of individual species from direct harm, but have a legal role in protecting their habitat and maintaining biodiversity.

The Department of Conservation has a broader role, on and off public conservation land, including the general advocacy role that it exercises through their involvement in consenting. Because DOC is frequently asked for input from local authorities regarding consent applications and threatened species and also makes submissions on such consents, efforts are underway at DOC to enable their responses to be more consistent nationally. These include improving the information base that supports these responses, especially via readily available spatial layers (Chris Rendell, Senior National Advisor, RMA, DOC, pers. comm.).

The Regional Council Biodiversity Working Group includes representatives from both regional councils and unitary authorities. A 'unitary authority' has the combined responsibilities, duties and powers of a regional council and a district or city council conferred to it (Department of Internal Affairs 2011). Councils have somewhat different roles. Territorial authorities have the responsibility for controlling the effects of land use on indigenous biodiversity, especially vegetation clearance and the effects of activities on the surface of lakes or rivers, whereas regional councils are responsible for managing the effects of using freshwater, land, air or coastal waters and managing rivers.

There are areas of overlap, such as when regional councils deal with consents regarding vegetation clearance is when this involves wetlands or aquatic systems or where it otherwise invokes other rules (e.g. earthworks controls). Across New Zealand, the degree of integration between regional councils and territorial authorities with jurisdiction over the same areas of land is variable. For some activities, applications must go to both the district and region because the proposed activity might require a consent given the rules in both the district plan and the regional plan. Other activities may be subject only to rules in one plan.

Within local authorities, the responsibility for managing the consents process lies with the person or people who process consents, whereas the the expertise to determine and appropriately monitor impacts on threatened species may reside in completely different departments or divisions within the local authority, or not be retained at all. The level of interaction between these different groups varies across the different local authorities as does the knowledge of each other's processes and data collection.

### 10.2.7 Linkages to other measures

Indicator M13 is linked to M5 ('Vulnerable ecosystems') (Holdaway et al. 2014), which reports on the state and condition of wetlands, dunes and other coastal ecosystems, and naturally rare ecosystems. Vulnerable ecosystems tend to contain disproportionally high levels of endemic and threatened taxa and are often located in areas of high anthropogenic pressure. However, threatened species may also be found in ecosystems that are not in themselves vulnerable and therefore M13 is complementary to M5. This is particularly likely given that the RMA specifically directs councils to protect the significant habitats of indigenous fauna, irrespective of the habitat's specific significance.

Data on consents issued collected as part of M14 ('Vegetation consents compliance') can be used to inform M13. Also, the process of collecting, storing and sharing consent information for M14 will have significant overlap with M13.

This measure (M13) is also linked to other measures relating to M9 ('Habitat and vegetation loss'), as vegetation clearance, changes in ecosystem extent, and habitat loss may all impact threatened species. In the future additional explicit linkages between these measures could be developed e.g. improving spatial data may allow threatened species distributions, vegetation clearance maps, and resource consent boundaries to be overlain.

## 10.3 Assessment of existing methodologies

### 10.3.1 Regional councils and unitary authorities

We developed a questionnaire and conducted phone interviews or received written responses to assess existing methodologies employed by the local authorities that might be relevant to M13. Here we summarise the answers by each of the eight questions and a list of the people interviewed and which authority they represent, and their complete responses are provided in Appendix 10-2.

1. Do you collect any information relevant to this measure? If so, can you describe this?

Only one local authority (Tasman) answered 'yes' to this question whereas all others stated that they collected some information, but that it is not directly relevant. This is because species *per se* are not included in the regulatory plans, whereas habitats are included. Information pertinent to threatened species may include a) spatial layers of species observation records (but these can be incomplete); b) spatial layers of habitats or Significant Natural Areas (SNAs) that may support threatened species); c) inferred presence of the threatened species in SNAs, Significant Ecological Areas (SEAs), coastal protection areas or habitat types that are themselves defined by the threatened species; d) recorded presence in freshwater fish surveys.

Information pertinent to consents would be primarily derived from the ecological assessments prepared for the consent application. At the most informative end of the scale a thorough analysis of likely impacts of the activity on threatened species will be included. However, assessments do not necessarily consider threatened species, even when they are present, depending on the expertise or thoroughness of the assessor. Many types of consents do not require an ecological assessment, so impacts on threatened species cannot be detected, much less have their severity determined.

2. If you don't collect any information relevant to this measure, do you have any suggestions on how such information could be collected?

Suggestions included a) developing a standard template (referred to as 'Practice Notes' by one local authority) for conducting ecological assessments for consent applications and biodiversity assessments of natural areas. This template would include an assessment of the presence/absence of threatened species and potential impacts of the activity on them; b) formalising and standardising the information and knowledge of the environmental and monitoring groups in the local authority, as well as that collected by different organisations (e.g. DOC, Landcare Research) so they are available to the consenting planner; c) creating/using a spatial layer of polygons depicting where a consented activity will take place and intersecting this with spatial layers depicting threatened species or habitats/SNAs/SEAs etc. known to contain threatened species.

3. What triggers a consent application being sent to your team?

This ranges from formalised mechanisms where lists of all consent applications are circulated weekly or biweekly, to as-needed referrals where consent applications are circulated when there is an emergent issue judged to require biodiversity/ecological expertise (e.g. an SNA or receiving environment or threatened species habitat will be impacted), to consent applications

not being sent on to biodiversity teams at all, even though they may have biodiversity impacts.

4. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded? Is there a database of consents and what does it contain?

For local authorities with no database of consents, every consent would need to be examined individually. Where consent applications are in electronic form, keyword searches on species, or conditions expected to affect them may be an option, but this would not necessarily return all relevant consents. Where consent databases exist, they may include conditions of the consent regarding the rule being broken and compliance records, but these databases do not have flags for threatened or individual species. To narrow such a search, one could focus on consents where the nature of the activity triggered specific rules (e.g. vegetation clearance, wetland modification, discharging contaminants for pest control, any activities, impacting freshwater or coastal areas) that are known to potentially impact threatened species. Alternatively, simply asking staff for instances where they highlighted threatened species in their decision letters approving a consent could achieve this.

5. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?

This is not currently feasible for any local authority, although it would be theoretically possible to add a tick box to the consent application and so capture in local authority consent databases. A salient issue is whether the local authority consenting divisions would be motivated to do this. Currently national (DOC) threat status listings are followed (except for one local authority that does not follow any lists); all threat ranks are considered. One local authority has a regional-scale list; others felt a regional-scale list would be useful.

6. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?

This is highly variable between consents and between local authorities. In some local authorities impacts on all threatened species noted in the application or ecological assessment would be summarised, in others impacts are more likely to be summarised if multiple threatened species will be affected. For some local authorities discussions with the consents division and monitoring teams would be required to more definitively answer this question.

7. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

All local authority representatives answered ‘Yes’. The methods used to assess compliance is assessed and the thoroughness of this assessment varies depending on both the nature of the consents and the individual local authority.

In some local authorities the monitoring reports prepared by or on behalf the consent holder may be filed, but not reviewed.In others the reports are reviewed, but monitoring audits are rare. In some instances, compliance audits are not routine but are triggered by complaints from the public. At the most thorough end, local authorities have enforcement teams and audits are routine. For some local authorities discussions with the consents division and monitoring teams would be required to more definitively answer this question.

8. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the local authorities? Does DOC do any reporting that is relevant to this measure?

The level of communication and involvement of DOC varies widely across local authorities, contracted ecologists and DOC offices and the consent notification level (dependent on plan rule(s) that apply and the anticipated level of adverse effects). DOC involvement may be restricted to a formal response to the consent application as an affected party or may involve an additional collaborative relationship that includes a) DOC reviewing consent reports and involvement with round-table discussions; b) DOC providing advice around the necessity to protect threatened species, mechanisms to protect species via new or altered local authority rules, or how to mitigate potential impacts of the activity on particular species or species groups

### 10.3.2 Department of Conservation

The primary legislative protection for indigenous animals is contained in the Wildlife Act 1953, which is administered by DOC. This act applies to all wildlife, regardless of land tenure. The primary legislative protection for indigenous plants is contained in the Reserves Act 1977, National Parks Act 1980 and Conservation Act 1987, which apply to public conservation land and the Queen Elizabeth the Second National Trust Act 1977 and Resource Management Act 1991, which apply to land of other tenure (De Lange et al. 2010). This means that the primary activities related to the protection of threatened species fall under the responsibilities of DOC.

As part of this responsibility DOC maintains threat listings for species at the national level, carries out inventory and monitoring of specific threatened species and maintains, to varying degrees, databases of known locations of threatened species occurrences. DOC and local authorities are working to devise an approach for assessing the conservation status of indigenous plants and animals at regional scales. The approach is modelled on the national threat classification system and builds on the legacy of regional threat lists (Rolfe 2015).

### 10.3.3 Other relevant agencies (district/city council that are not part of unitary authorities, consents teams within local authorities)

District and city councils that are not part of unitary authorities will potentially consider impacts on threatened species for consents that pertain to vegetation clearance and land use impacts on aquatic ecosystems.

## 10.4 Development of a sampling scheme: what will be measured and how

In this section we describe the type of data that needs to be collected and collated to support this measure. The types of data needed to report this measure are:

- Numbers of consents approved/rejected that involve threatened species
- Name and threat status of species potentially impacted by consents
- Severity of the potential impacts of activities on threatened species
- Record of conditions placed on consents and compliance with those conditions

A process diagram outlining the steps involved in implementing this measure is provided in Figure 10-1.

### 10.4.1 Identification of consents involving threatened species

The most direct approach would be to add a field to the databases of consents so that when summary information regarding consents is captured, whether threatened species are present in the area that will be affected by the proposed activity is also captured. At a minimum, this would be populated by a Yes/No response. To be more informative, this could capture the name of the taxon or taxa being impacted. Links with the New Zealand Organisms Register (NZOR) species identifier could be included to make the system robust to synonyms and future taxonomic revisions.

The scope of taxa considered should follow the current cycle of the NZ Threat Classification System lists, maintained by DOC and published as the New Zealand Threat Classification Series. The publications from the 2012–14 cycle are listed in Appendix 10-3; full publications can be downloaded from the DOC website[16]. NZOR provides threat status information according to these lists providing a ready mechanism to link a taxon name with threat status.

Councils may wish to incorporate threatened species information (if they do not already) into their initial assessments of consent applications. This will require overlaying spatial layers depicting locations of observations of threatened species and their breeding and non-breeding habitats with areas of proposed consented activities. Where it is considered likely that threatened species may be affected (and is not initially highlighted by the applicant), further information could be sought. However, this assumes that a) threatened species spatial layers are fully accurate and up-to-date and that b) there are no off-site impacts of the proposed activity and therefore is not a substitute for appropriately qualified expert involvement.

[16] http://www.doc.govt.nz/about-us/science-publications/conservation-publications/nz-threat-classification-system/nz-threat-classification-system-lists-2012-14/

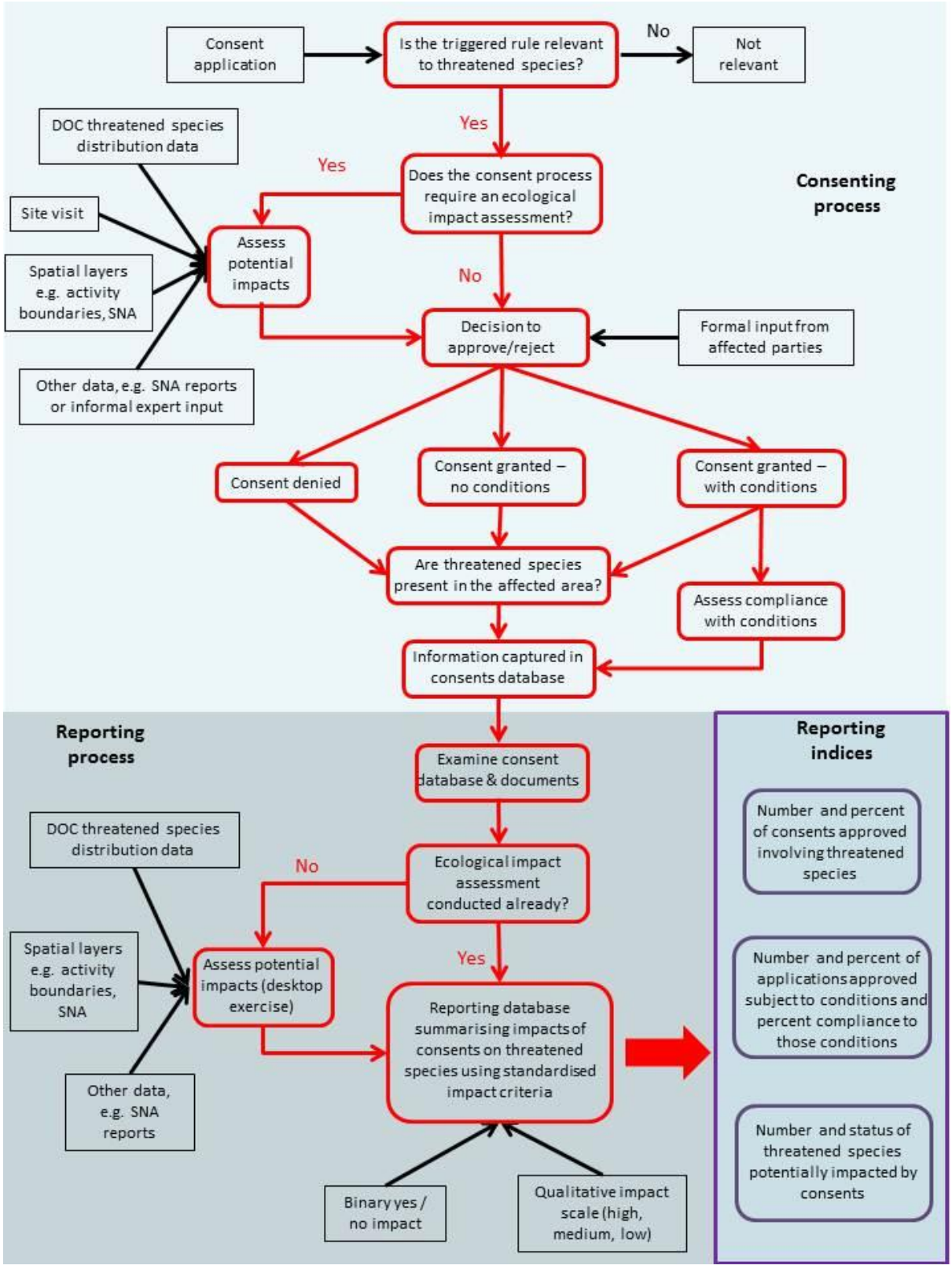


**Figure 10-1** Flow diagram summarising the consenting process and the steps involved in implementing M13.

### 10.4.2 Collating data on potential impact on threatened species

Capturing whether a proposed activity will impact a threatened species does not indicate the potential severity of the impact. Impact can be assessed in terms of the likelihood that the species will persist in the long term given the results of the activity. Because of the challenges in making quantitative assessments of potential impacts compounded by the lack of comparability across species and regions, potential severity of impact would be captured qualitatively as 'high', 'medium' or 'low' following these definitions:

- High = the activity will result in direct mortality of threatened species and/or permanent destruction of breeding habitat or the ability of the species to persist in that locality.
- Medium = the activity may result in direct mortality of threatened species and/or will temporarily affect either breeding habitat or the ability of the species to persist in that locality.
- Low = the activity will not result in direct mortality of threatened species, but will reduce overall habitat quality.

The assignment of these categories would be based on manually examining documents pertaining to consents identified as impacting threatened species using the consents database or from the indirect spatial query. Once determined, it is suggested that medium – high ranked impacts are immediately notified to the appropriate office of DOC.

Impacts on threatened species specifically are the concern of DOC. Links between DOC and consenting agencies can be opaque or non-existent. This measure could perform a useful policy function whereby it mandates notification to DOC where an impact is possible, and records their response.

### 10.4.3 Data on consent conditions and whether they have been met

Information on whether consent conditions have been met should be captured during the consent approval and monitoring process and this information should be stored in the consents database. This will provide a record of

1) whether compliance with a consent condition has been assessed
2) the motivation for the assessment (e.g. complaint by the public or random check)
3) whether the consented activity took place and
4) whether the conditions were met or not.

Ideally, all consents involving medium and high risk to threatened species and conditions relevant to threatened species should be assessed for compliance as a matter of priority. The frequency of any additional monitoring requirements should be determined at the outset and enshrined within the consent conditions.

### 10.4.4 Data on actual impacts

Quantification of the actual (realised) impacts of consented activities on threatened species would require detailed pre and post-activity monitoring of threatened species populations in the area affected, and in adjacent control sites. This is unlikely to be achievable within the scope of the Regional Council Biodiversity Monitoring programme, and is more aligned with the mandate of DOC and the exercise of council compliance and enforcement functions (ideally working together). For M13, data on 'potential impacts' will therefore be used as a surrogate for 'actual impacts'.

### 10.4.5 Standardisation across local authorities

Standardisation across local authorities is needed to ensure the ability to report on M13 both within and across regions. In particular, the following components should be standardised where possible:

- The data fields used to capture threatened species information in the consents database
- The reference source used to designate threatened species (e.g. threat classification based on the most up to date NZ Threat Classification System lists and species names where identified based on NZOR,)
- The method and/or categories used to assess the magnitude of the impact of consented activities on threatened species.

### 10.4.6 Reporting change: standardisation across time

Reporting changes in M13 over time is sensitive to a number of factors. The ratio of consents approved to those declined is robust to temporal variability in the number of consent applications, but the percentage or number of consents in compliance is sensitive to changes in approaches used to assess compliance. In addition, a comparison across years requires the application of the same impact assessment criteria each year.

The threat status of individual taxa may change over time. This could result in the total number and distribution of threatened species within a local authority's jurisdiction changing accordingly. It will be important to partition the influence of such changes on the value of the indicators over time from changes due to levels of restriction in granting consents.

### 10.4.7 Alignment with other measures

Methods for assessing compliance and data on consents collected as part of M14 (Vegetation consents compliance) should be used to inform M13, and the systems developed simultaneously for both measures. In particular both should anticipate the need for ongoing assessments of compliance.

## 10.5 Data management and access requirements

### 10.5.1 Data storage

As proposed in section 10.4.1, basic information on whether threatened species are present in the area that will be affected by the proposed activity is best stored in consents databases. Standardised work flows could ensure that taxa names are standardised and can be readily linked to threat status and can allow the impact of both changing taxa names and threat status on the measure to be assessed over time. A means for storing the information extracted manually from consents will be required. This might best be a (flat) database of consents and the associated species that provides threat status at the time the consent was granted, potential impact scores, etc. as needed to calculate reporting metrics. This database could be shared among local authorities to allow national-scale reporting.

### 10.5.2 Access to data

Locations of threatened species is potentially sensitive information that should not be widely shared. The use of a consent identification that is meaningful to the relevant local authority would allow specific threatened species and consent details to be located by approved individuals and enable these to be tracked as required over time (e.g. transparency audits).

## 10.6 Reporting indices and formats

### 10.6.1 Primary reporting indices

The primary reporting indices for this measure, in order of increased resolution, are:

a. The total number of consents approved;

b. Percentage (and number) of consents approved in the previous year where threatened species were listed as occurring in the area affected by the proposed activity;

c. Percentage (and number) of consents approved in the previous year where threatened species were listed as occurring in the area affected by the proposed activity, separated by the maximum potential impact on any one species, designated as low, medium or high;

d. Percentage (and number) of consents approved in the previous year where threatened species were listed as occurring in the area affected by the proposed activity having monitoring requirements, by maximum potential impact class;

e. Percentage (and number) of consents approved in the previous year where threatened species were listed as occurring in the area affected by the proposed activity having mitigation requirements, by maximum potential impact class;

f. Percentage (and number) of all consents approved in past years where threatened species were listed as occurring in the area affected by the proposed activity having monitoring requirements that are in compliance with these requirements.

g. Percentage (and number) of all consents approved in past years where threatened species were listed as occurring in the area affected by the proposed activity having mitigation requirements that are in compliance with these requirements.

Examples of how these should be reported are shown in Table 10-1. Where data permit, each of the above indices should be further broken down by species threat status as shown in Table 10-2. Indices (a-d) should be reported annually. Index (e) should be reported every 2–5 years.

**Table 10-1** Example high-level reporting table for M13

| Reporting index | Consents issued 2014 | Consents issued 2013[1] |
|---|---|---|
| Total number of consents issued | 156 | 148 |
| Total number of consents declined | 14 | 11 |
| Total number of consents approved involving threatened species | 35 | 30 |
| Percentage of approved consents involving threatened species | 22 | 10 |
| Percentage (and number) of consents involving threatened species where the maximum potential impact is: | | |
| High (%) | 40 (14) | 20 (2) |
| Medium (%) | 14 (5) | 20 (2) |
| Low (%) | 40 (14) | 40 (6) |
| Not assessed (%) | 6 (2) | 20 (2) |
| Percentage (and number) of consents with mitigation requirements by potential impact class: | | |
| High (%) | 14 (2) | 100 (2) |
| Medium (%) | 40 (2) | 50 (1) |
| Low (%) | 0 (0) | 0 (0) |
| Percentage (and number) of consents complying with monitoring requirements | 75 (3) | 100 (3) |
| Percentage (and number) of consents complying with monitoring requirements: | | |
| High (%) | 14 (2) | 50 (1) |
| Medium (%) | 20 (1) | 50 (1) |
| Low (%) | 0 (0) | 0 (0) |
| Percentage (and number) of consents complying with mitigation or monitoring requirements | 67 (2) | 100 (2) |

[1]Data from previous years to provide multi-year context

**Table 10-2** Example reporting table for M13 divided by species threat status

| Reporting indicies for 2014 | Species threat status | | | |
|---|---|---|---|---|
| | Critically Endangered | Endangered | Vulnerable | Total |
| Total number of consents issued | | | | 156 |
| Total number of consents approved involving threatened species | 1 | 4 | 30 | 35 |
| Percentage of approved consents involving threatened species | 0.5 | 2.5 | 19.0 | 22 |
| Percentage (and number) of consents where the maximum potential impact is: | | | | |
| High (%) | 100 (1) | 25 (1) | 40 (12) | 40 (14) |
| Medium (%) | 0 (0) | 50 (2) | 10 (3) | 14 (5) |
| Low (%) | 0 (0) | 25 (1) | 42 (13) | 46 (16) |
| Not assessed (%) | 0 (0) | 0 (0) | 8 (2) | 6 (2) |
| Percentage (and number) of consents with mitigation requirements by potential impact class: | | | | |
| High (%) | 100 (1) | 100 (1) | 0 | 14 (2) |
| Medium (%) | 0 | 100 (2) | 0 | 40 (2) |
| Low (%) | 0 | 0 | 0 | 0 (0) |
| Percentage compliance with mitigation requirements | 100 (1) | 66 (2) | 0 | 75 (3) |
| Percentage (and number) of consents with monitoring requirements by potential impact class: | | | | |
| High (%) | 100 (1) | 100 (1) | 0 | 14 (2) |
| Medium (%) | 0 | 50 (1) | 0 | 20 (1) |
| Low (%) | 0 | 0 | 0 | 0 (0) |
| Percentage (and number) of consents complying with mitigation or monitoring requirements | 100 (1) | 50 (1) | 0 | 67 (2) |

[1]Data from previous years to provide multi-year context

### 10.6.2 Additional (optional) reporting indices

To be more informative these tables could be further broken down to report separately on different phyla or groups of threatened taxa, for example, threatened plants versus threatened animals. They could also be supplemented with a list of the actual threatened taxa impacted by consents. This would provide valuable information for conservation planning by identifying the species most at risk from consented activities. It is likely that implementing this aspect of the monitoring framework may be very resource intensive, and not plausible for all councils.

## 10.7 Future development

Many activities that impact threatened species may require permission from both regional and district or city councils. In this research, we only liaised with regional and unitary authorities. If we are to make progress on this measure, the remaining district and city councils would need to be involved. In addition, engagement with consenting functions of councils and indeed, DOC in totality has not been a feature of this work.

The Department of Conservation also has much knowledge, authority and involvement with threatened species and consents. If we are to make progress on this measure, DOC needs to be involved.

## 10.8 References

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# Appendix 10-1 – Summary of Biodiversity Working Group decisions on the scope of M13

Two discussions have been had at the biodiversity working group meetings surrounding the revised scope of M13. The first discussion was on the 2nd December 2013 (Wellington). The second discussion occurred on the 20 February 2014. Both discussions are documented in 'Key decisions reached_biodiversity monitoring tools project_12December2013.pdf':

**Decision reached 02 December 2013**

*Measure/Issue*

M13. Threatened species habitat.

M13 contains two components:

1. change in habitat and populations of threatened taxa; and
2. number and status of threatened taxa impacted by consents

Suggestion by Robbie Holdaway and Susan Wiser (key scientists for M13) that "change in habitat and populations of threatened taxa" should no longer be a part of M13 as it is aimed at reporting change in the state indicator (M4) which was merged with M5 [see decision #1]. This aspect could be covered more generally within M12 (Change in extent and protection of indigenous cover or habitats or naturally rare ecosystems). M13 could be developed to only focus on the second aspect of the measure – "number and status of threatened taxa impacted by consents".

*Decision*

Retain some ability to report on threatened habitat and species. "Threatened species habitats" will be reported in the context of *wetlands, dunes and naturally uncommon ecosystems* with the caveat that this does not include all habitats for threatened taxa. Retain the "threatened species habitat impacted by consents" aspect of M13.

*Justification*

Caveat on definition of threatened species habitat is required to acknowledge:

- that threatened taxa might be found in exotic habitat; habitat not dominated by indigenous species, or habitat not formally associated with that taxa
- that some threatened taxa are mobile across multiple habitats
- that some threatened taxa may have seasonal variances in their habitat requirements/preferences

Local authorities with greater capacity to report over and above the minimum of wetlands, dunes and naturally uncommon ecosystems are able to do so. While many local authorities might struggle to report "threatened species habitat impacted by consents" this does not mean it should not be kept as a valid indicator.

**Decision reached 20 February 2014**

*Measure/Issue*

M13. Threatened species habitat

Further to above decision made by BDWG on 2-December-2013, concern was raised by Susan Wiser and Robbie Holdaway that the BDWG decision (see Decision #13) was ecologically untrue to M13, if the first component (change in habitat and populations of threatened taxa) of the measure was retained as threatened ecosystems are not synonymous with threated taxa.

Secondly, M5 (vulnerable ecosystems) reports on the state and condition of wetlands, dunes and other coastal ecosystems, and naturally rare ecosystems. So this shift in the first part of M13 could simple be seen as the 'change' version of M5, and confuses the focus (threatened taxa) of M13.

A very strong recommendation from the LCR scientists involved in this measure was to retain the integrity and focus of M13 by either:

- If retaining the BDWG 2/12/13 decision: Add a new indicator to cover the change aspect to threatened ecosystems that the BDWG decision attempts to bring to M13 (i.e. the 'change' version of M5) OR
- To retain the focus on threatened taxa in M13: Drop the first component of M13 if this is beyond the scope of regional councils core work

Decision:

Retain the intention of M13 to focus on threatened taxa.

It was noted that the BDWG decision was made in the context of core council work (not typically in sspecies management) while acknowledging the importance of monitoring and reporting on threatened taxa.

Therefore the first component of M13 is to be dropped, with the second retained:

1. ~~change in habitat and populations of threatened taxa; and~~
2. number and status of threatened taxa impacted by consents

Justification:

It was agreed that it was undesirable to muddy M13 with M5 or undertake monitoring under M13 that did not truthfully report on the intent of M13. The second component of M13 can be retained as this cuts to the core of regional council business, while the first component is more suited to the Department of Conservation's mandate, and many councils will not have the ability to report on this.

Those councils that do undertake threatened species work, can 'add-on' monitoring and reporting to complement the minimum set of indicators developed under this project.

# Appendix 10-2 – Summary of input from regional/district council staff regarding assessment of existing methodologies

We conducted phone interviews or received written responses to specific questions from May to October 2014 with the individuals listed in Table A10-2-1 who were the designated contacts for this measure.

**Table A10-2-1** Designated council representatives contacted in May-October 2014

| Council | Type of local authority | Representative |
|---|---|---|
| *Unitary Authorities* | | |
| Auckland Council | Unitary authority | Alastair Jamieson |
| Marlborough District Council | Unitary authority | Nicky Eade |
| Nelson City Council | Unitary authority | Reuben Peterson |
| Tasman District Council | Unitary authority | Lindsay Vaughan |
| *Regional Council* | | |
| Bay of Plenty Regional Council | Regional council | Nancy Willems |
| Hawkes Bay Regional Council | Regional council | Malcolm Miller |
| Horizons Regional Council | Regional council | James Lambie |
| Northland Regional Council | Regional council | Lisa Forester |
| Otago Regional Council | Regional council | Richard Lord |
| Taranaki Regional Council | Regional council | Halema Jamieson |
| Waikato Regional Council | Regional council | Yanbin Deng |
| Wellington Regional Council | Regional council | Philippa Crisp |

*Waikato Region: Yanbin Deng*

1. Do you collect any information relevant to this measure?

- No do not collect directly. In SNA assessment collect threatened species info at that site level. When there is a resource consent that applies to that SNA, then the presence of threatened species would be included in the assessment.
- If the resource consent is not applicable to an SNA or sometimes the company directly contracted someone to make an ecological assessment of the site. This person then may or may not record the presence of threatened species. There is no standard template for ecological assessment so threatened species could readily be missed. Such a standard is badly needed including such things as vegetation/habitat type and threatened species.
- Sometimes based on habitat type, there would be an expectation that there are threatened species (c. 600 year podocarp forest and presence of long-tailed bats in south of Waikato district). If they weren't mentioned initially, then would send back the application for the applicant to do further assessment.

- Not all resource consent applications require an ecological assessment but all should include a recording of at least vegetation/habitat type and threatened species, if there is vegetation habitat there.
- Consideration of the impact of the consent on threatened species is a DOC expertise, DOC's advice is very important.

2. If you do, can you describe this?
- See above

3. If you don't, do you have any suggestions on how this information could be collected?
- See above

4. What triggers a consent application being sent to your team? [not asked in this interview]

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded?
- Don't know how this would be done. Yan Bin doesn't see that much consent.
- Approved consents would be filed with Resource Use group. So they would have to be looked through there. No clear idea of how much consent would need to be examined.

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?
- Only knows about the one that her office sees. Other people might see other consents that cover threatened species. Yan bin would see all ecological assessments for consents. Wetland person would see other consents that would involve threatened species. Right now she is seeing them, but that is usually outside of the requirements of her position.
- Use the national publications – plants, birds, frogs, freshwater database, DOC bioweb. It is challenging when threat status changes
- Also have a regional list (each district has a list)
- Species of any threat status considered
- When threatened species present, the consent is less likely to be granted and increase the level of mitigation to reduce risk to the species. May have a strategy to relocate species or increasing predator control nearby etc.

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?
- She thinks so.

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?
- Yes. Compliance assessed by requiring one or more monitoring reports. Might include accounting of expenditure, e.g. on possum control. Assess success of planting, degree of animal control, bird counts etc. If they are not compliant – she hasn't encountered this yet.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the local authorities? Does DOC do any reporting that is relevant to this measure?
- DOC is involved for all threatened species. Usually reviews report.
- Includes both non-DOC and DOC land
- DOC provides advice about mitigation and protection of threatened species
- Council sends threatened species part to DOC to review and DOC sends feedback. Then there may be roundtable discussions between company, DOC, Resource use people
- Not sure if DOC does any reporting relevant to the measure.

10. Additional comments:
- Would like a standard template regarding information that must be provided regarding threatened species on resource consent applications
- Would like a set of priorities around threatened species – which species are such high priorities that no consents should be granted?
- Would be good to have qualified ecologist list nationwide for Councils to provide to the landowners or companies who want to assess the biodiversity values on their land for the recourse consents.

*Bay of Plenty Regional Council: Nancy Willems*

1. Do you collect any information relevant to this measure?
- Not really. They do have some spatial depiction of threatened species/threatened habitats. This could potentially be linked to locations of consents. Currently the latter is depicted as points based on the address of the consent applicant, rather than a polygon depicting where the activity will take place.

2. If you do, can you describe this?
- See above

3. If you don't, do you have any suggestions on how this information could be collected?
- A buffer could be established around the point locations of the consents and intersected with species/ecosystem distribution information to give a first indication, or vice versa – buffer around the ecosystems or records of threatened species and intersected with consents.

4. What triggers a consent application being sent to your team [not asked in this interview]

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded?

- The current consents database doesn't have the capacity to search the contents of the submitted documents, e.g. to allow a search for the string 'threatened' or for a particular species names. The database may contain activities that are related to the consent. These are collected by the applicant checking tick boxes on the application form. One could focus on particular activities that could impact threatened species, e.g. geothermal activity, vegetation clearance, earthworks, modification of wetland.

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?

- At the current time this isn't done. One solution is to add a tick box on the consent application forms where threatened species are impacted, or in the database so that you can generate a report. It's unlikely our council would invest in even this adjustment to the current database as we're looking to upgrade to an alternative (possibly IRIS).
- For threatened species, the threat rankings from the DOC system are used.
- Which threatened species are considered (i.e. the level of threat ranking) will vary according to who has written the application. Generally speaking, if it has a threat ranking of any level it will be considered.
- It is not clear how much the presence of threatened species affects the decision. However, this will trigger the consent application coming across Nancy's desk. This results in a technical audit of the application to make sure it is adequate. I suspect it would also trigger DOC being an affected party and thereby having some input.

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?

- Don't know. It probably varies depending on the activities and the potential impacts.

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

- Any mitigation/monitoring requirements would come through as conditions of the consent.
- Theoretically compliance is assessed, but to varying levels. The compliance monitoring cycle is not closed. Monitoring is done by the consent holder or a person contracted by them. The consent holder then delivers a report to the council. A person in the council checks that it has been received, but they may not read it or determine whether the

consent holder is in compliance with the consent requirements, or if there is an effect on a threatened species even if they are complying. There is no audit to determine the adequacy of the monitoring or the results and whether or not some further action might be needed.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?

- YES, even for land not on DOC estate. This is required under the Wildlife Act or where there is a potential or actual effect on anything indigenous biodiversity or the public conservation estate, so activity could be adjacent or nearby. Communication with council comes through as a formal response during the consent process. DOC is required to respond even when they have no objection (I think – the process is that if they are an affected party and they don't respond within the timeframe I think that triggers a notification process).
- Don't know about DOC reporting.

10. Additional comments

- District consents and Regional consents often are handled quite separately by two separate organisations (unless you're a unitary authority) as the district and regional councils cover different functions and activities. Across regions, the degree of integration is variable. For some activities, applications must go to both District and Region because it might trigger rules in the district plan and a regional plan; others are only required to go to one or the other. In BOP have it set up so that certain triggers make a consent come to the region (e.g. indigenous biodiversity affected).
- This isn't going to be an easy measure to gather info on and I'm thinking will require some changes or additions to our processes, so we (the regional councils) might have to do some thinking around systems we might put in place. Establishing a baseline would be difficult too, although if we're only reporting on an annual basis (sorry can't quite remember) as in how many consents were granted that affect critters, then that would make it a little easier.

*Nelson City Council: Reuben Peterson*

Do you collect any information relevant to this measure?

- No, not directly. Indirectly, council staff get involved with threatened species, but not so much with consents and not very often. Council also has survey information of flora species within Significant Natural Areas which not if a rare species is within that area – these however are confidential at this stage.

1. If you do, can you describe this?

- N/A

2. If you don't, do you have any suggestions on how this information could be collected?

- Would need to set up a baseline database. Start with information from DOC as the holder of knowledge for threatened species in the area. Would be delivered through SOE monitoring.

3. What triggers a consent application being sent to your team? [not asked in this interview]

4. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded?

- Threatened species not mentioned in applications very often, unless the applicant was aware of threatened species in the area. So would be difficult to determine which consents to examine. However threatened species may be mentioned in the decision. Could narrow down to consents that triggered rules (e.g. freshwater, wetlands, indigenous forest, and coastal areas) to determine which consents decisions to examine. Probably the best way to proceed would be to raise at a team meeting level to identify staff who have highlighted threatened species in decision letters.

5. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?

- N/A re: consent applications, but see above re: decision letters. Would follow the DOC list. Since awareness of the presence of threatened species would be raised by DOC, would have to ask DOC what threat levels they would be considering.

6. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?

- Yes. Discussion in consent letter would say why it was approved despite species being present.

7. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

- Yes. Also there may be conditions on consent to prevent any impacts on threatened present. There is an enforcement team that checks whether conditions are being met.

8. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?

- Any time there is a trigger (as listed above) DOC becomes involved (along with iwi and Fish & Game, depending on details of consent). This happens even if the site is not on DOC land.
- Don't know about DOC reporting.

*Taranaki Regional Council: Halema Jamieson*

1. Do you collect any information relevant to this measure?

- Probably not – see notes under 'Additional information'. There is a person who deals with freshwater fish who may be knowledgeable but she hasn't been able to contact him. There is a system in place (see Resource Consent Practice Notes Indigenous Biodiversity, 2010, sent to me), but it doesn't appear to be implemented. This includes info on how to determine if any area is significant or whether threatened species may be impacted.
- In the TRC, the Biodiversity section has been amalgamated with Biosecurity (now all in the Environment Services Team). The Scientific Officer Ecology role has emerged from a recent restructure and is essentially a reconfiguration of a previous SO biodiversity role that used to sit in a technical services section of the TRC. This new role will work will work more closely with the biosecurity and biodiversity teams and may also be able to facilitate the implementation of the Resource Consent Practice Notes. [I need to do is look at these practice notes and reference them regarding the questions below].

2. If you do, can you describe this?

- See above

3. If you don't, do you have any suggestions on how this information could be collected?

- The first step would be to implement the practice notes. For example a recent application for land drainage had the potential to affect a wetland and there was monitoring required, but it didn't mention threatened species per se although they may have been there.
- There is a biodiversity condition assessment protocol (see new document being sent) that is currently used by the biodiversity team to assess areas of forest, wetland or coastal ecosystems (including private land) as part of a voluntary programme to protect key areas of biodiversity in the region. This system has scope for capturing information about threatened species that could be used in site assessment as a consequence of a consent application being filed. However it isn't specifically being used in the consent process now.
- Probably most relevant work is being done by the freshwater people (biodiversity should be involved with wetlands and are very occasionally involved if consents affecting them are brought to their attention) – as these ecosystems are most likely to be affected by applications for discharge, drainage or realignment of a watercourse.

4. What triggers a consent application being sent to your team? [not asked in this interview]

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded? Is there a database of consents and what does it contain?

- Currently not likely to be mentioned in site assessments or decision. If they are mentioned, they would be difficult to find buried within the documents.
- The database seems to be quite detailed, but no specific flag on threatened species

  [One issue is that the designated contact person for this measure is generally a biodiversity person and may not be sufficiently involved with consents to be able to answer my questions]

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?

- Not readily given the way the data is being collected. Biodiversity team and SO ecology have a database of known threatened species and habitats for the region. Species lists are updated regularly when species are reassessed through the DOC NZTCS. Regionally important species are also included from local information. Unclear if or how this information is used by consents team.
- There are GIS layers of SNA and other important native ecosystems in the region (Key Native Ecosystems - KNE), but no layers for threatened species distributions. Could use KNE as indicators of potential distribution of threatened species, as the descriptions of these ecosystems include lists of threatened species. Then could intersect with locations of approved consents. Generally this is not done during the approval process as it is too fiddly? (Not sure why this isn't done so not sure we can say this. Would be something we (biodiversity/ecologist) would do if we were involved)
- Don't know if threatened species presence changes considerations around consent.
- If identified, then yes but unsure how often consents are fully assessed for impacts on terrestrial threatened species

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?

- For the most part doesn't know, but would have to ask consents people. There are conditions regarding freshwater fish passage, for example. Again, if identified, then yes they should be

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

- Yes and area is monitored to assess compliance.
- Would need to talk to consents people and compliance and monitoring team for details.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?

- Doesn't know, would need to contact DOC people. See email forwarded from ex NP DOC RMA ranger. When she worked for DOC in Auckland City Council are, local DOC office was not contacted unless the activity was near to DOC land, in contrast to my earlier answers. DOC Conservancy statutory land management team may have had further input.
- This issue affects herpetofauna greatly, Society for Research on Amphibians and Reptiles in NZ (Herpetological society of NZ (not to be confused with NS Herpetological Society), a voluntary group with a strong academic and research bent) or Technical Advisory Group for lizards (DOC TAG group) are putting together a toolbox for information and are developing guidelines for Councils, developers and consultants about how to identify lizard habitat and mitigate impacts. (Both groups have put together information toolboxes and the TAG are developing the guidelines for Developers, Councils and consultants)

- Feedback from Chris Rendall, who was the ranger dealing with RMA issues in the nearby DOC. Current position is Senior National Advisor, RMA.
    - DOC involvement is variable in terms of both DOC offices and Councils. TRC will usually ask us about stream modification especially if there are threatened (e.g. at risk) fish species present. I am going to be working with some lizard people in regards to how to improve RMA engagement etc. – NPDC chats to us and the Herpetological Society if they are going to clear flax etc. but don't usually approach us if private individuals are getting consent to clear vegetation etc. (unless it's a Significant Natural Area (~25 in the district) in the district plan there are no specific rules attached to vegetation clearance).
    - DOC is involved when area affected is on or outside the DOC estate, but this varies between different DOC offices.
    - DOC communication with Councils varies - depends if it is a s95E or a notified consent... (local office vs shared services)
    - As for DOC reporting that is relevant to this measure would need to ask S&C but that's more of a Council monitoring role...
    - In terms of the variability in DOC involvement, I am hoping to make us more consistent – e.g. the attached documents I have put together, the GIS link below. I am also hoping to work with the S&C teams in wellington to better map things like lizard distribution so that it can be better incorporated in plans. Note if someone kills wildlife protected by the wildlife act (ei clear vegetation with protected species in it without the appropriate permit) they can be prosecuted but we seldom have sufficient evidence to follow this up.

- I have also been working with one of the GIS guys to make a quick GIS check for whether we have an interest in a proposal e.g. when someone approaches us with an s95E. If the site shows up as red then it warrants further consideration. \\Wgnhosvr1\groups$\RMA_Ranger

10. Additional comments:

- It seems that there is little or no reporting of threatened species impacted by consents from here. The majority of consents dealt with here are for discharges to air, land, water or for water take. There are likely to be impacts to some habitats and/or species from some of these consents but I am unclear as yet on how these are dealt with. Do you have contacts for the District councils? It would be good to know how they deal with their consents as they may have more dealings with habitats and veg clearance.
- Note: Although both Regional and District Councils have management responsibilities relating to indigenous biodiversity under the RMA, the Regional Policy Statement for Taranaki indicates responsibility for controlling the use of land to maintain indigenous biodiversity is with the District Councils (New Plymouth DC, Stratford DC and South Taranaki DC), EXCEPT where the use of land relates to the Regional Councils functions under the RMA.
    - Under s30 of the RMA, these are:
    - The control of water (includes taking, using, damming and diverting)
    - The control of air
    - The control of land for the purposes of soil conservation, water management, natural hazards avoidance and hazardous substances management
    - The investigation of land for the purposes of identifying and monitoring contaminated land
    - The control of the coastal marine area (in conjunction with the Department of Conservation)
    - The control of the discharge of contaminants to the environment
    - The control of activities in relation to river and, lake beds.

*Tasman District Council: Lindsay Vaughan (response provided via Mike Harding)*

1. Do you collect any information relevant to this measure?

- Yes, but only for the small proportion of consent applications that contain an ecological assessment (generally larger projects).

2. If you do, can you describe this?

- Through analysis of the assessment of effects and/or through advice from staff and contract ecologists.

3. If you don't, do you have any suggestions on how this information could be collected?

- Information about the location and extent of threatened species is gathered through TDC Native Habitats Tasman project (a District-wide survey of significant indigenous vegetation and habitat for RMA section 6(c)).

4. What triggers a consent application being sent to your team? [Not asked in this interview]

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded?
- Consents for drainage, vegetation clearance, road construction and land development. Local knowledge.

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?
- National published lists. No, all species on lists are considered, based on advice of ecologists.
  Potential adverse effects are considered for all consents.

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?
- Yes.

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?
- Yes. Depends on the nature and type of the consent.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?
- Advice is frequently sought from DOC by Councils staff or contract ecologists. No, there is ongoing liaison with DOC, most often through contract ecologists. DOC communicates with councils through staff contact and contract ecologists.

*Wellington Regional Council: Philippa Crisp*

1. Do you collect any information relevant to this measure?
- For terrestrial not directly, main reason is that Regional Council doesn't deal with vegetation clearance, only deal with wetlands and aquatic. Consents around roading may go through Regional Council (e.g. Transmission Gully). District councils deal with vegetation clearance. One option is for Regional Councils to gather this information from the relevant District Councils. In some places (ARC) now all one, but this isn't the norm around the country.

- One issue is that locations for threatened species are poorly known. Consultants preparing the consent application may miss threatened species in their surveys and they may not have had the background information to know what to look for in the first place. So if we do improve this knowledge, may see an increase in threatened species impacted by consents, but this will be because of information base improving rather than necessarily a true increase.

2. If you do, can you describe this?
- In few consent applications that their office has reviewed, they have found threatened species missing.

3. If you don't, do you have any suggestions on how this information could be collected?
- Could improve processes. See suggestions above re: Regional vs. District Councils. Not so many consents coming in that affect threatened species so it isn't a huge ask to improve the processes.

4. What triggers a consent application being sent to your team?
- It should as a matter of course, but if the applicant has used consultants then the consenting officer may feel the knowledge is sufficiently complete to not warrant further scrutiny.

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded? Is there a database of consents and what does it contain?
- Don't know.
- Could probably exclude those with no biological component. Might actually need to talk to consents people to identify the biological/non biological divisions around consent types.
- Doesn't think there is a database.

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?
- Not that she knows of.
- Main concern is nationally threatened (national critical, vulnerable, endangered, not the lower level rankings). There is no regional level threat listing, although this would be a good idea (may not be practicable though).

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?
- Has only been involved in a limited number where this is the case, but in those, yes potential impacts have been summarised

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

- Yes (e.g. Transmission Gully). The consent holder has to prepare a report pursuant to the management plan required by the consent.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?

- Weren't involved with Transmission Gully. In this region may be primarily focussed on DOC estate. DOC isn't always asked about consents, so they would need to find out about ones that are relevant to threatened species in another way.

*Marlborough District Council: Nicky Eade*

1. Do you collect any information relevant to this measure?

- Not really, we do collect some info on Threatened Species through different processes, but not directly through the consent process. These include
    - SNA surveys
    - Freshwater surveys
- The consenting group circulates a list of consent applications fortnightly, so then science staff can comment (based on their knowledge gained elsewhere, see above). They are a unitary council which makes communication easier. The consents planner wouldn't have access to this information (i.e. threatened species lists) directly
- The comments of the biodiversity team on consents are not tracked formally, would depend on consent planner and how far they want to take this.

2. If you do, can you describe this?

- See above

3. If you don't, do you have any suggestions on how this information could be collected?

- Not really. But there should be a better system for formalising and standardise the knowledge of the environmental science and monitoring group (maps, checklists) that could be available to consenting planner. Could target the easiest, most obvious species first (e.g. weka, seabirds), but unclear the degree to which activities which affect them (i.e. a subdivision bringing in dogs and cats) could be restricted.

4. What triggers a consent application going to you?

- Get a full list of consents to review (fortnightly). Consents offices will approach their office about specific consents if they suspect that there is an issue. But threatened species have not really emerged as a big issue. Existence of SNAs would be more noticed.

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded? Is there a database of consents and what does it contain?

- The consents database brings up the conditions of the consents.
- Information on threatened species wouldn't be flagged in the database. Not a searchable factor. She isn't an expert in using the database.

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?

- Not right now. Might need to talk to consents officer. Follow the current up-to-date classification from DOC (national lists). Would be nice to have a regionally-based list – both species occurring in the region and regional priorities (e.g. southern Marlborough has hardly any native species left so just about everyone is important).
- Threatened species can be given consideration in the consent process (e.g. recent king salmon hearings, a threatened species of shag got a big hearing owing to submissions). Marine mammals would have an influence.

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?

- Could be if the presence of threatened species was raised as an issue, but in some cases the issue might have never been raised in the first place.

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

- Yes. Not all consent conditions end up being followed up on.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?

- They could have. Probably took a stronger advocacy role in the past than now. Probably would if it were on their land. Council has a good relationship with DOC but with restructuring some of the contact points have broken down.
- Should it be DOCs job to come up with regional lists of threatened species and feed into the process?

10. Additional comments

- Biodiversity role of Regional councils – Biomanagers group have been asked to review regional council roles in Biodiversity. It could be important to look at this in relation to this issue.

- Is this getting too far into DOC territory? But who else has a role with private land? So attention needs to go into the processes.
- Highlighted in 2007 Priorities statement, has been integrated into District plans somewhat (wetlands, threatened environments), threatened species and naturally rare could be emphasised further.

*Hawkes Bay Regional Council: Malcolm Miller [Consents Manager]*

1. Do you collect any information relevant to this measure?

- Not consistently. We may issue consents which include conditions seeking avoidance of areas of habitat but we don't actively follow up and gather data on these. We may request some reporting of species loss.

2. If you do, can you describe this?

- Some consents may require reporting of effects; e.g. for consents for pest control using 1080 we have included a condition requiring reporting of any reported loss of untargeted species:

> (a) Summary (including type and number) of any reported non-target species birds and animals that were killed within the operation area, where this death is potentially attributable to the direct or indirect consumption of 1080.

- The Ruataniwha Water Storage Scheme (RWSS) dam construction consent has conditions requiring pre and post construction monitoring of eels. This is to verify if conditions requiring trap and transfer of eels to and above the dam are working. This decision is still draft decision from the EPA appointed Board of Inquiry. The RWSS has also proposed a comprehensive Integrated Mitigation and Offset Programme. This includes the establishment of a Ruataniwha Biodiversity Advisory Board to oversee delivery and the development of a monitoring strategy. If you wish to sight the details refer to the Ruataniwha Water Storage Conditions Document, Schedule 2 Conditions 5 -9.

http://www.epa.govt.nz/Publications/Volume_3_of_3_(pt_2_Conditions_Schedule_1-3).pdf

This project depends on whether the dam proposal is proceeded with.

3. If you don't, do you have any suggestions on how this information could be collected?

- See above

4. What triggers a consent application going to you?

- We are receiving all consents that fall within the jurisdiction of the Regional Council. If the proposal is in an area known or identifiable as having importance as a habitat for endangered species this will be considered in the assessment of effects. If necessary HBRC will seek expert advice on the values from in house science or from external experts.

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded? Is there a database of consents and what does it contain?

- This would not be straight forward. Consents to discharge contaminants for pest control, to dam water bodies, do works in waterways, or in the coastal environment may all raise issues of the effects on endangered species.
- It would be possible to do a key word search of conditions to pick up key conditions that reference endangered species. But many consents may not specify threatened species and may rather be addressing the habitat requirements that lend themselves to sustaining threated species. E.g. fish passage, riparian margins etc.
- There is a data base of consents. It tracks the progress of the consent from initial application to being issued. It links to previous consents which have been superseded. It provides access to the officer's report and consent document. It tracks subsequent compliance with conditions.

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?

- I consider it would be possible to flag consents where threatened species are mentioned. We don't currently so would need to consider what lists to use and how this will benefit the Council. We would be guided by any Biodiversity Strategy and National and Regional Policy.
- In processing a consent we will have regard to the effects on any threatened species or their habitats and work to condition the consent to avoid, remedy or mitigate these effects.

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?

- Yes, typically.

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

- Yes, typically. It will depend on the conditions of consent. HBRC may require works to occur outside spawning or breeding periods. The times of the works can be observed via compliance monitoring. Works may be required to avoid nesting birds. This may require a trained person to go on site and mark out no go areas. Otherwise compliance may rest with the operator. Or compliance may rely on responding to complaints from the public. As mentioned above the RWSS proposal to establish a water storage and irrigation supply scheme in the Tukituki catchment and the Ruataniwha plains area has included resource consents that will lead to damming areas of indigenous habitat including bat roosts and falcon nests. Conditions are proposed that require offsetting of these lost habitats. Monitoring of these before and after is required.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?

- Depending on the initial assessment of effects, DOC may be informed or notified where it is considered there are effects that may be of concern to them. DOC has participated in some consents often around effects of water takes on instream habitats or wetlands or on coastal areas. This is more than just being involved on issues related to the DOC estate. We will meet DOC staff from time to time informally to discuss matters e.g. Tukituki water take consent renewals and coastal protection works. They have formally submitted on consents and have engaged in hearings on occasion. They are participating in a non-statutory Catchment Management Plan initiative that has arisen out of a water allocation consenting process in the Poukawa catchment (in order to enhance management of Lake Poukawa). DOC is participating in the Regional Plan development process for the Heretaunga Plains and catchments (TANK). Restructuring seems to have moved some of the RMA / advocacy staff functions away from the Hawke's Bay to Waikato, reducing our frequency of contact.

*Otago Regional Council: Richard Lord*

1. Do you collect any information relevant to this measure?

- Not really – but ORC do a lot of annual water quality monitoring which includes electric fishing and recording fish species. Rare or threatened species can be picked up through this activity.

2. If you do, can you describe this?

- See above

3. If you don't, do you have any suggestions on how this information could be collected?

- There is certainly information out there – but mostly collected by other people (DOC, Landcare, consultants, District Councils) but there is no mechanism to pull it together.

4. What triggers a consent application going to you?

- Generally more about biosecurity issues, effluent discharges is a permitted activity – do inspections of dairy farms, so no consent application required. Generally does not receive consent applications that may have a biodiversity impact.

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded? Is there a database of consents and what does it contain?

- Would point them in the direction of the resource consent offices. His team does the audit of those consents (is the compliance team). So they could provide some help as well. The kinds of consents that should be examined – those regarding water and coastal (probably

highest priorities) and air; probably best to not ignore any classes of consents. Land disturbance is at the District Council level.

- There is a database. Called 'Objective'. Has a consent number and a brief description of what the consent is for. ARC-GIS viewer layer to show location of consents. Could search individual consents, once you open that particular file (e.g. the pdf file). It would be hard for someone outside their office to extract the relevant information as in their office they hold a lot of knowledge and familiarity with consents based on their long experience and work with the consent process.

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?

- Otago Council has never identified a threatened species list specific to their area. They don't apply the national lists (i.e. those compiled and administered by DOC). So this would not be easy to do, because for the most part threatened species wouldn't be mentioned in a consistent way. But may come out in officers report

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?

- Probably would come out in consent officers report

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

- Yes they would. Compliance is done through audits (periodic basis) or if a complaint is received.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?

- For all notified consents DOC has the opportunity to make a submission. They can make submissions regarding proposed activities both on and off the DOC estate as they are treated like any other submitter. Yes there is some communication between DOC and their office. Often consultation during the notification period. DOC does reporting on their own land, but unlikely to do reporting off their land.

*Auckland Council: Alastair Jamieson*

1. Do you collect any information relevant to this measure?

- Possibly, but not directly or routinely. Might be the odd consent with threatened species information in it.

- Marine: coastal protection areas – a number of these are defined based on the presence of international significant wading birds. Here information on these threatened species may be more readily captured, but the biodiversity team is not really involved with marine things (CPAs). Those offices that were responsible have been recently restructured, so is unclear which team is handling this now.

2. If you do, can you describe this?
- See above

3. If you don't, do you have any suggestions on how this information could be collected?
- How to do that given the complex structure of the organisation is not all that clear. Couldn't really happen unless there were rules around threatened species.

4. What triggers a consent application going to you?
- This is based on Auckland operative plans as applies to schedules of significant natural areas and now the proposed Auckland Unitary Plan that defines significant ecological areas. Consents divisions would make a judgement of whether the consent should come to the Biodiversity office, so referral isn't necessarily automatic. Species *per se* aren't recognised in the regulatory plans, but threatened species information is one of the factors that has gone into determining significant ecological areas. SEAs may have threatened species but as of yet the identity of all of them may be unknown. There also could be threatened species outside of SEAs. Once species are under the jurisdiction of Wildlife act is no longer council responsibility (responsibility is DOC). DOC would only know about potential violations of the Wildlife Act if the consent was notified. For example, it is unknown where all threatened lizards are and there are vegetation clearance rules outside of SEAs where the primary concern is erosion, for example. In this case no-one would know that lizards were there to be considered in the first place. So while killing the lizards is an offence under the wildlife act, this might never be discovered. Basically if an area isn't scheduled as an SEA or SNA then threatened species will fall between the cracks as far as council considerations go.

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded? Is there a database of consents and what does it contain?
- Most consents were mapped in the past (not sure about this now). It is unclear whether they are mapped only at the property scale or provide detail of the part of the property to which the consent applies. Could intersect these maps with maps of SEAs and then potentially figure out which SEAs had threatened species recorded. There would be a reasonable amount of work involved with this. Some interpretation would be required as to whether the nature of the consent would actually impact the threatened species present.
- To be able to do this would probably require a change in the regulatory processes.

- There probably are a few databases of consents. Probably not yet amalgamated from the original component councils. Unlikely to have the information that would be relevant to this measure.

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?
- Don't know how searchable the databases would be, probably not. For the consents that come to the Biodiversity office – could potentially set up an EXCEL spreadsheet. However, the Biodiversity office does not know whether all the consents that should come to them actually do.
- For unitary plan they used DOC national list and a regional list (for plants made by Botanical Society and DOC, probably constructed by Euan Cameron and Peter De Lange; for animals may have been prepared by the old DOC Conservancy).
- If threatened species present, ecologists would provide advice to planning team but wouldn't know what actually happened with this advice. The Biodiversity office is most effectual around SEAs, less effectual around wildlife act.

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?
- The Biodiversity office doesn't see them, but potentially they would be. Probably under the radar for small-scale vegetation clearance. Would be widely variable the degree to which such impacts would be summarised.

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?
- Can be mitigation where there is vegetation clearance, have been rules about transferring animals (e.g. various road construction and golf course developments have required lizards to be translocated). Compliance teams sit within the regulatory department. Compliance is budgeted within the consent fees, but generally is quite a low amount and may not be sufficient for the monitoring that is really required. If there is a planting plan (restoration) one of the Biodiversity team might be involved to see if the planting meets the requirements of the consent.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?
- Would need to talk to DOC.

10. Additional comments:
- Biodiversity team is quite separate from regulatory divisions. Still lots of legacy structures from the old councils, so not everything is connected up.

*Horizons: James Lambie*

1. Do you collect any information relevant to this measure?

- Not in a way that would be easy to answer these questions. We have policies around assessing site significance of aquatic ecosystems where significance is defined by specific indicator species that are in themselves threatened (fish and whio (blue duck). There is a list of SNA sites. For terrestrial ecosystems the approach is not around identifying SNAs per se. Rather there is a schedule of habitat types and some of these are defined by the presence of a listed threatened species (e.g. *Powelliphanta* habitat, some shrubs). If the area under consideration for a resource consent includes a listed habitat that defines the site as significant.

2. If you do, can you describe this?

- See above

3. If you don't, do you have any suggestions on how this information could be collected?

- They do get unevenly distributed, ancillary info about threatened species that is revealed during the consent process.

4. What triggers a consent application going to you?

- Terrestrial ones where there may be an activity such as vegetation disturbance/clearance in one of the listed habitats.
- But won't see consents for activities in non-listed habitats (e.g. beech forest) that may contain threatened species.
- Aquatic ones: discharges (direct sewage, indirect (earthworks, diffuse pollutants – intensive farming), disturbance of the riverbed or margin, water takes (including ground water) – consents team will decide whether receiving environments will be affected.
- The issue that is relevant to this measure is that there are no direct rules around threatened species.
- Some RMA background: Initially the responsibility as outlined by the RMA of controlling activities of vegetation clearance/disturbance with Districts, as they were responsibility for earthworks, land use etc. Later RMA amendment made Regional Councils responsible for biodiversity protection (so Regions can write regional policy statements that Districts have to adhere to and give effect to in their District Plans. However, this amendment did not give Regional Councils the power to control activities that might impact biodiversity unless the Districts agreed to delegate this power to the Regions.
- Horizons decide the District Council Plan process and focus on SNAs wasn't giving effect to their policy of no net loss of biodiversity, so they wrote some rules around this. So now consents involving vegetation clearance can go to both the Districts and the Region.
- If Horizons ecologists visit a site subject to a consent application, they would record what is important about site that needs to be protected from impacts of the activity. This would include noting any threatened species that were observed.

- Their rules focus on habitat, rather than species. This is because the RMA specifies that local governments should be focussed on habitats whereas responsibility for species is DOCs.

5. If one wanted to summarise which approved consents had threatened species mentioned in either the initial application or somewhere in the approval process, how would one determine which consents to examine? Are there any types of consents that could be excluded? Is there a database of consents and what does it contain?

- Would have to go through all of them. Would focus on certain activity types – e.g. vegetation clearance and then within that activity on the rule that might be broken that would be so indicated in the consent application. Example rules focus on threatened habitats, SOSA (Site of significance aquatic) or SOSR (Sites of significance riparian), for example. This would be time-consuming task
- Yes there is a database. In relation to this measure it includes the activity type and then the rule being broken. A future version of the database will hold conditions of the consent (mitigation, monitoring).

6. Would it be possible to flag the consents where threatened species are mentioned? What threatened species list is used? Are only the species with the highest threat status considered? Are consents where threatened species are an issue given special consideration?

- Manual process would be required. Could a flag for threatened species be created in new database? YES. They probably should. Responsibility for maintaining and adding this to the database would be the consents people. If the flag doesn't add information that the consents people feel they need (e.g. breaking the rule) then they wouldn't want to spend the time capturing it. Addition of this flag would have to be promoted as required for compliance with the 'no net loss of biodiversity' policy.
- Although ticking a box sounds easy, finding the information in the consent might be challenging. Whether this is being done properly might need to be determined by the ecologists. Adding info such as the actual identity of the threatened species might be better done by the ecologists as this would be both challenging for the consents people and they may not feel this is part of what they should be doing.

7. When a consent is approved for an area containing a threatened species, are potential impacts summarised in the decision?

- Can be. Not all the time. Might be an application that will affect multiple threatened species. So there will be a collective impact that would be described. Some of older decisions (before the rule on biodiversity protection) might not summarise potential impacts. Modern ones might not if the species was missed in the assessment (e.g. species is cryptic (*Dactylanthus taylorii*) or assessment done by an ecologist who would not record taxa outside of their specialty.

8. Does the consent decision summarise mitigation and monitoring requirements for the consent holder? If so, how is compliance assessed?

- Yes. Compliance – generally don't go back to older consents. The compliance team spends more effort on instances where rules are being broken rather than ensuring that monitoring or mitigation is being carried out. Also depends on nature of consent e.g. compliance for Dairy sheds very rigorously assessed, but consents for forest harvesting may not be checked, especially if sites are in remote areas where checking on compliance would be costly. The resource consent decision has no provisions for the consent holder to pay for the compliance checking.

9. What involvement does DOC have with consents that cover areas where threatened species occur? Is DOC only involved when the area being affected is DOC estate? How do they communicate with the councils? Does DOC do any reporting that is relevant to this measure?

- DOC is involved when it's on DOC estate. Off the DOC estate -- if an application comes through that they know is a threatened species that DOC is actively working on trying to conserve then DOC are contacted as an affected party. Planners generally come to James – it comes down to understanding the degree to which the activity might result in harm to the threatened species population.
- For fish, for example, DOC helped write the rule that Horizons implemented. DOC is happy that Horizons is following the rule, so DOC does not need to be contacted.
- What about threatened species (e.g. plants) that DOC isn't actively working on? Answer is "yes" that DOC would usually be contacted. But there is no formality around this. No obligation on the part of the council to contact DOC except for those species for which there is national law (e.g. lizards, whitebait).

*Northland Regional Council: Lisa Forester*

All of these questions are best answered by our Consents Department as, I'm afraid I am not involved closely enough with the consents process to understand exactly what information is recorded. We do process the consents through our IRIS database but I am not aware that there are any records specifically for impacts on threatened species other than incidental capture of data through the AEE process. The person to talk to is Geoff Heaps – geoffh@nrc.govt.nz

Our team receives a spreadsheet of new applications every Monday morning which enables us to follow up on any applications we are interested in. Occasionally, where processing officers deem it necessary, they approach me or any of the other specialists for advice on particular applications. In the case of

Excavating for swamp kauri our field officers maintain a relationship with logging companies particularly in the far North. We encourage an approach in the pre-application stage to discuss the need for a consent as well as appropriate environmental standards. This is because of a number of incidents that have been raised by the public post logging where wet paddock sites end up looking like wetlands.

[No further response received. Unable to schedule an interview with Lisa; contacting further people, e.g. Consent Officers, was beyond the scope of this project]

## Appendix 10-3 – NZ Threat Classification System lists 2012–14

**Conservation status of New Zealand hornworts and liverworts, 2014.**
Peter J. De Lange, David Glenny, John Braggins, Matt Renner, Matt von Konrat, John Engel, Catherine Reeb and Jeremy Rolfe 2015. *New Zealand Threat Classification Series 11.* 31 p. (PDF, 686K (opens in new window))

**Conservation status of New Zealand earthworms, 2014.**
Thomas R. Buckley, Stéphane Boyer, Scott Bartlam, Rod Hitchmough, Jeremy Rolfe and Ian Stringer 2015. *New Zealand Threat Classification Series 10.* 10 p. (PDF, 575K (opens in new window))

**Conservation status of New Zealand marine invertebrates, 2013**
Debbie Freeman, Kareen Schnabel, Bruce Marshall, Dennis Gordon, Stephen Wing, Di Tracey and Rod Hitchmough 2014. *New Zealand Threat Classification Series 9.* 20 p. (PDF, 664K (opens in new window))

**Conservation status of New Zealand freshwater invertebrates, 2013**
Natasha Grainger, Kevin Collier, Rod Hitchmough, Jon Harding, Brian Smith and Darin Sutherland
*New Zealand Threat Classification Series 8.* 28 p. (PDF, 748K (opens in new window))
Supplemental data (XLSX, 125K (opens in new window))

**Conservation status of New Zealand freshwater fish, 2013**

Jane M. Goodman, Nicholas R. Dunn, Peter J. Ravenscroft, Richard M. Allibone, Jacques A.T. Boubee, Bruno O. David, Marc Griffiths, Nicholas Ling, Rodney A. Hitchmough and Jeremy R. Rolfe 2014. *New Zealand Threat Classification Series 7.* 12 p. (PDF, 599K (opens in new window)) Supplemental data (XLSX, 48K (opens in new window))

**Conservation status of New Zealand bats, 2012**

C. O'Donnell, J. Christie, B. Lloyd, S. Parsons and R. Hitchmough 2013. *New Zealand Threat Classification Series 6.* 8 p. (PDF, 552K (opens in new window)) Supplemental data (XLSX, 21K (opens in new window))

**Conservation status of New Zealand frogs, 2013**

Don Newman, Ben Bell, Phillip Bishop, Rhys Burns, Amanda Haigh and Rod Hitchmough 2013. *New Zealand Threat Classification Series 5.* 10 p. (PDF, 566K (opens in new window)) Supplemental data (XLSX, 23K (opens in new window))

**Conservation status of New Zealand birds, 2012.**
Hugh Robertson, John Dowding, Graeme Elliott, Rod Hitchmough, Colin Miskelly, Colin O'Donnell, Ralph Powlesland, Paul Sagar, Paul Scofield, Graeme Taylor 2013. *New Zealand Threat Classification Series 4.* 22 p. (PDF, 620K (opens in new window)) Supplemental data (XLSX, 98K (opens in new window))

**Conservation status of New Zealand indigenous vascular plants, 2012.**

Peter de Lange, Jeremy Rolfe, Paul Champion, Shannel Courtney, Peter Heenan, John Barkla, Ewen Cameron, David Norton and Rodney Hitchmough 2013. New Zealand Threat Classification Series 3. 70 p. (PDF, 793K (opens in new window)) Supplemental data (XLSX, 410K (opens in new window))

**Conservation status of New Zealand reptiles, 2012.**

Hitchmough, P. Anderson, B. Barr, J. Monks, M. Lettink, J. Reardon, M. Tocher and T. Whitaker 2013. *New Zealand Threat Classification Series 2*. 16 p. (PDF, 650K (opens in new window)) Supplemental data (XLSX, 39K (opens in new window))