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Submission

This is a submission on the Proposed Te Tai o Poutini Plan, the Combined District Plan for the West Coast (TTPP).

Introduction

We are rate payers in the Grey District. We own a 30ha property in Aratika Drive that we have enjoyed spending time at over the last decade. It is beautiful mixed podocarp forest with some river terraces of red beech. There are a number of small creeks which flow through the property. This area was last logged almost 100 years ago and there are some huge remnant podocarps including matai, miro, kahikatea and rimu that escaped the logging. The forest also includes many large kamahi and mountain cedar (pahautea). There has been widespread regeneration, and since we commenced work here on pest and predator control, we are seeing considerable regeneration with seedlings growing on previously bare forest floor. Our vision for the land is to improve the health of the forest, and provide an intensively predator controlled core area which connects with other larger areas, to benefit birdlife and other biodiversity.

We are heartened to see that the TTPP has identified 37 significant natural areas (SNAs) in the Grey District. However, on looking at the TTPP map, it appears there are no SNAs on private land in the Brunner region, the area that we are most familiar with.

We are unclear if the same applies to the entire Grey District as a whole?

We are submitting on the apparent omission of a very rare and ecologically significant wetland as an SNA in the TTPP. The wetland in question adjoins both our property and that of our neighbour and is listed in the WCRC Land and Water Plan as Aratika BRUP056 (legal title: Lot 2 DP 3977). This submission is to seek clarification on the status of this wetland and request that it be included as an SNA within the TTPP.

This wetland is classified as a peat bog in an ecological report undertaken by the Department of Conservation in 2009 (see attached report). In this, the author, Mr Henk Stengs, refers to another peat bog in Aratika Drive, Lot 4, in close proximity to the wetland referred to above, with the nearest other example being near Springs Junction.

Mr Stengs' regarded this wetland as very rare and recommended that it be legally protected along with the surrounding indigenous vegetation in Lot 2.

However, his recommendation was not followed up with any action, and shortly after his report was completed, the large land parcel of 660ha including Lot 2, containing most of this wetland, was sold. The land surrounding the wetland has now been converted to a dairy farm and the pine plantation on its southern margin has largely been felled.

Our property is on the eastern side of the wetland (see attached aerial view of the wetland) and includes a small part of this peat bog. We have managed our bush block with intensive trapping for almost a decade to control rats and mustelids, and employ a hunter to regularly hunt the property for feral pigs. TB Free control possums in the Arnold Valley area, including on our property. We are a relatively short distance from the landscape scale Predator Free 2050 project on Te Kinga, managed by West Coast Regional Council.

Forest & Bird recently noted (2021) that "The majority of the drained peatland in Aotearoa is used for intensive farming. Dried peatland emits carbon and is responsible for up to 6% of agricultural emissions in New Zealand."

"Peat wetlands in particular are super carbon sinks. They hold twice as much carbon as all of the world's forests combined, yet cover only about 3% of earth's land surface."

We consider this wetland meets the criteria defined in both the TTPP and West Coast RPS to qualify as an SNA. However, in terms of defining SNAs the Plan is unclear, confusing and inconsistent with the regional plan, leaving the status of the wetland uncertain. The following references expand on this:

In the **TTPP**:

"Significant Natural Areas in the form of Regionally Significant Wetlands are scheduled and identified in the West Coast Regional Land and Water Plan."

National Environmental Standards (NES) Freshwater 2020 has extensive regulation around works that can be undertaken in or near to a wetland. These are administered by West Coast Regional Council and not repeated in the TTPP.

In the **West Coast Regional Council RPS Glossary** (definition of an SNA):

Significant Natural Area, or SNA means an area of significant indigenous vegetation, and/or significant habitats of indigenous fauna which has been identified using the criteria listed in Appendix 1 or 2 and included on maps in a regional or district plan as a SNA, or an area which although not included as a SNA in a regional or district plan nevertheless meets one or more of those criteria listed in Appendix 1 or 2.

Also, with reference to the following sections in the **RPS**, the criteria are broad and a number of them would seem to apply to the wetland we are submitting on:

Chapter 7 Ecosystems and Indigenous Biological Diversity; Policies

a) Areas of significant indigenous vegetation and significant habitats of indigenous fauna will be identified using the criteria in Appendix 1; they will be known as Significant Natural Areas (SNAs), and will be mapped in the relevant regional plan and district plans.

b) Significant wetlands will be identified using the criteria in Appendix 2; they will be known as Significant Natural Areas (SNAs), and will be mapped in the relevant regional plan.

<https://www.wcrc.govt.nz/repository/libraries/id:2459ikxj617q9ser65rr/hierarchy/Documents/Publications/Regional%20Plans/Regional%20Policy%20Statement/Operative%20RPS%20final%2014%20July%202020.pdf>

Appendix 1:

Ecological criteria for identifying significant terrestrial and freshwater indigenous biological diversity; Page 57

Appendix 2: Ecological criteria for identifying significant wetland; Page 58

The 2001 document titled “Significant Natural Area Assessment and Protection” appears to have been used by the Grey District Council to inform their decisions on which areas to classify as SNAs. This document does not seem to have been updated subsequently. (Document is attached).

We have had ongoing communication with Grey District Council in an attempt to clarify if the wetland is a SNA. Michael McEnaney, Environmental Planning Manager at GDC, has sent a number of relevant documents to assist with this submission, however in his words:

“I did look into the initial identification of SNA back when the project was commenced. Unfortunately other than the document I sent you there are no other records. There

are records of sites that with the approval of the Department of Conservation were not deemed SNA (per the District Plan stepped process) but these were identified in the report I sent you. Ultimately I do not know why the area you refer to was not deemed SNA and therefore I am unable to answer your question."

No-one at the GDC has been able to say why the wetland area in question has either a) been considered and then rejected for inclusion as a SNA, or alternatively b) not been considered at all.

The Grey District SNA identification process has gone on for over 20 years. **It can only be concluded that this wetland has been overlooked and has not been designated an SNA in the TTPP plan, nor is it identified on a map in the TTPP plan.**

The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F) set national direction to protect and improve wetlands and put a stop to further loss of their values.

The inclusion of SNAs in the TTPP should **not** be dependent on land owner permission and approval. This is especially so for wetlands, where nationally only 10% of wetlands remain intact, and many of these are in danger of draining, pollution or habitat disturbance. The existence and ongoing protection of the remaining wetlands is for the benefit of all New Zealand. Footnoted below is a table extracted from the 2001 document referred to above.

The West Coast has a number of significant wetlands identified by the WCRC in their Land and Water Plan as either a schedule 1 or 2 wetland. Each and every one is precious.

The decision that we seek is for the Grey District Council to recognize the importance of this wetland, and include it as an SNA in the TTPP to ensure the ongoing protection of this special area.

We wish to be heard in support of this submission.

Signed
Susan Hall and Kevin Dunn

Footnote:

Included in the 2001 document Significant Natural Area Assessment and Protection (page 40) was the table below, which summarises the ID process in the trial areas. I am assuming that these potential SNAs were on private land. However it is not clear if any, or all of these, appear in the TTPP plan.

WEST COAST SNA PROJECT							
SUMMARY RESULTS OF SNA IDENTIFICATION IN THE TRIAL AREAS							
Ecological District	Number of possible SNAs	Field assessments			Final SNA status		
		number visited	entry refused*	no change	minor change	major change	deleted
Foulwind	10	7	4	5	1	1	0
Brunner	15	13	2	5	4	3	2
Waiho	10	9	2	5	3	1	1

*Includes cases where entry was refused to part of the SNA only

Further, the map provided in the on-line versions of the TTPP identifying the SNAs is unhelpful to anyone wishing to find further information eg whether the land is public conservation land, private land or other. Details of the ecology is provided, but very limited in detail and does not include the land area in hectares.

ECOLOGICAL ASSESSMENT OF PRIVATE LAND NEAR ARATIKA

**Henk Stengs
Greymouth
October 2009**

INTRODUCTION

The purpose of this report is to assess the ecological features of two portions of private land near Aratika and provide options for their protection. Those portions are shown on the map below (Figure1).

A local landowner Mr Tjeerd (“TJ”) Visser is in the process of developing land situated north west of Lake Brunner as at October 2009. He applied for a resource consent for humping and hollowing. Early negotiations resulted in the withdrawal of a wetland from the application (Anna Gerraty, West Coast Conservancy pers. comm.). It has been offered to the Department, either by way of purchase or as a possible exchange for other land. This wetland has an area of about 35 ha and is within a portion of Lot 2 DP 3977.

On 13 October 2009 Mr Visser offered a further area of land to the Department via an email to the writer with an attachment showing its location an aerial photograph. This is Lot 4 DP 3977, which has an area of 277 ha. It contains two wetlands each of similar size to the one in Lot 2, as well as indigenous shrubland, regenerating forest and a pine plantation. Most of Lot 4 is already subject to the Tasman Accord, a covenant under the Reserves Act 1977. Lot 4 was included in an earlier ecological assessment of a considerably larger area situated west of Lake Brunner that was formerly owned by Pacific Forest Holdings Ltd (Stengs 2009).

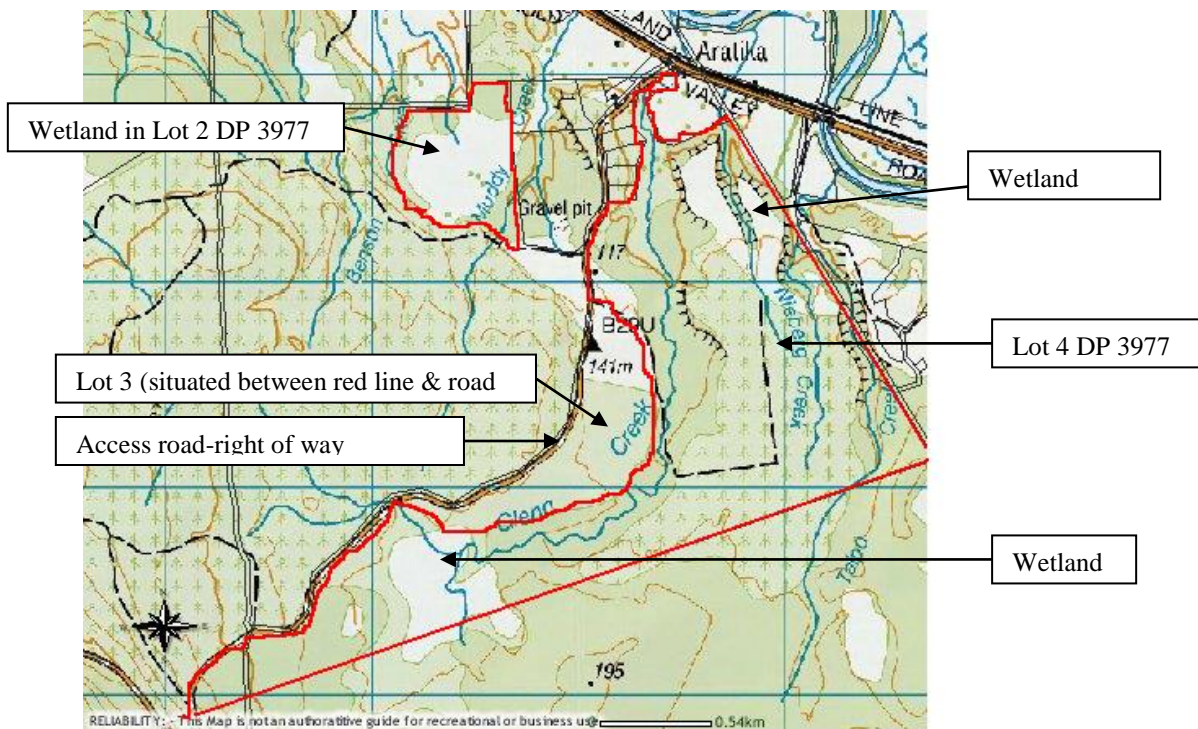


FIGURE 1: Location map

LOCATION AND ACCESS

Both portions of land are situated about 2-3 km northwest of Lake Brunner on the true left of the Arnold Valley. From Arnold Valley Road at Aratika a gravel road-right of way road and Thomas Brunner Drive are the main ways of gaining vehicle access.

The smaller portion of land on offer, which is the northern wetland, is accessible from a forestry road that runs off the existing gravel access road-right of way. This is followed by a short walk on foot along the edge of pine forest. The right of way also follows the north boundary of Lot 4, whose east boundary is Thomas Brunner Drive (Figure 1).

Both areas are on the boundaries of the Hochstetter and Brunner Ecological Districts, within the North Westland Ecological Region (McEwen 1987)

PHYSICAL FEATURES

Most of the land in the general area consists of rolling landscapes, comprising bouldery glacial till (Nathan et. al. 2002). These are from a late phase of the Otira Glaciation that took place between 74,000 and 12,000 years ago. Small incised creeks that drain both land blocks flow toward the Arnold River.

Two of the wetland areas, situated in shallow basins are peat bogs. The third wetland is a pakihi terrace. The vegetation of these is described in the next section.

Soils in Lot 2 and most of Lot 4 are mapped as Flagstaff soils, with some Maimai soils mapped for the pakihi in the east of Lot 4 (Mew and Laffan 1980). Both soil types were described as being gleyed and poorly drained, with those of the Flagstaff series derived from moraine and Maimai series soils from glacial outwash alluvium. However during field inspections it was found that soils of the two of the wetland areas were derived from peat.

VEGETATION

1. Vegetation of the wetland area in Lot 2 and its peripheries

This wetland is not included in the Tasman Accord and is a peat bog. It consists predominantly of tangle fern (*Gleichenia dicarpa*) and wire rush (*Empodisma minus*), with scattered *Baumea rubiginosa* - a spike rush. Noticeably taller species include *Dracophyllum palustre*, bog pine, manuka and *Coprosma tayloriae* shrubs. These are re-invading the bog after a fire or fires (Figures 2 and 3). Prior to the fire(s) there were taller trees present, most likely silver pine whose dead trunks remain standing. They are a conspicuous feature of this bog.

During field visits on 6 and 7 October the vegetation in five 2 m x 2 m plots was sampled in the bog in order to provide an indication of the proportions of the dominant plant species present. Results were as follows¹:

1. Wire rush-tangle fern rushland
2. (*B. rubiginosa*)/wire rush-tangle fern/*Sphagnum* rushland-fernland
3. Wire rush rushland
4. [*B. rubiginosa*]/wire rush-tangle fern rushland
5. Wire rush/*Sphagnum* rushland.

¹ Refer Clarkson et. al. (2004) for wetland sampling methods. Meaning of symbols for % canopy cover is as follows: underlining >50%, no symbols 21-50%, round brackets 11-20%, square brackets < 10%. A hyphen refers to species of the same height, slash refers to species of different height, with species of greatest abundance and height listed first.

The peat was in good condition, with very little decomposition of organic matter evident. It is likely to be deeper than 1.8 m in some places, this depth being the physical limit to which a probe could be pushed down and recovered.

All but a south portion of this bog are fringed by either forest or dense shrubland. Forest species include lower-statured mountain toatoa, kaikawaka and kahikatea on the west side, with occasional silver pine. Shrubland on boggy ground usually consists of dense manuka, weeping matipo, pokaka, rohutu and *C.tayloriae*, with occasional kahikatea silver pine and kaikawaka. On more fertile ground away from the bog, peripheral kanuka shrubland and occasional matai are present, plus tall red beech stands on the east. All of the forest and shrubland areas have been modified by fire and logging.

The southern edge of the bog is fringed by a radiata pine plantation and dense gorse. Some slightly drier sites within the bog also contain clumps of gorse. Pines are invading the bog from its southern end. With the exception of a narrow tongue extending into the bog from the south east, most of these are saplings or seedlings that are in poor condition. Their removal would be straight forward.

The ages of the largest bog pine and kaikawaka found in the wetland (not forest around the fringe) were both approximately 35 years. This provides an indication of the date of the last fire.



FIGURE 2: Typical bog vegetation



FIGURE 3: Pond near centre of the bog and regenerating manuka

2. The vegetation of Lot 4

Lot 4 was previously owned by Pacific Forest Holdings Ltd as part of a larger block that was included in a report that was the subject of a Nature Heritage Fund application (Stengs 2009).

2(a) The wetland area at the head of Glenn Creek

This wetland is included in the Tasman Accord and is another peat bog that is situated immediately south of Lot 3 (Figure 4). It generally consists of *B. rubiginosa* and wire rush and is similar to the one described for Lot 2, except that the former species is more prominent. There are also areas consisting of low-statured *Dracophyllum palustre*. The main visual characteristic of this bog, like the one in Lot 2, is the high density of charred remnant tree trunks. Silver pine is gradually reinvading the wetland from its periphery, along with manuka, mountain toaotoa and divaricating shrub species. If left undisturbed, silver pine forest should return over time. The shrub belt gives way to emergent kaikawaka, over smaller rimu on drier land at the edge of the wetland, which are in turn replaced by tall rimu and hardwood forest on undulating moraines

During a June 2009 an assessment of bog vegetation was carried out in five 2 m x 2 m plots in order to provide an indication of the proportions of dominant species present². Results were:

1. [Manuka]/wire rush rushland
2. (*B. rubiginosa*)/wire rush rushland
3. Wire rush-tangle fern rushland with standing water
4. (*B. rubiginosa*)/tangle fern-wire rush fernland-rushland
5. Manuka/wire rush rushland



FIGURE 4: Peat bog in south of Lot 4 with dead silver pine still standing. The vegetation is dominated by *Baumea rubiginosa*, *Gleichenia dicarpa* and *Empodisma minus*. Manuka and divaricating shrubs are succeeded by rimu, kahikatea and kaikawaka in the background

(b) The pakihi and terrace side overlooking Thomas Brunner Drive and Aratika

² See Clarkson *et. al.* (2004)

These areas and a block of adjacent pine forest are not included in the Tasman Accord

In the north east of Lot 4 above Thomas Brunner Drive there is a glacial outwash (pakihi) terrace fringed by a narrow belt of manuka, succeeded by kanuka and kahikatea. Kahikatea of pole size are also common along the edges. The pakihi itself has a uniform plant cover that consists of (*B.rubigonosa*)-Canadian rush/*Sphagnum* mossland, along with widely scattered clumps or individuals of *C. tayloriae*, manuka, *Podocarpus acutifolius*, kahikatea, blackberry and gorse. Blackberry, Canadian rush, dandelion and Yorkshire fog are also common, indicating that dry land plant invasion is occurring. .

As with the earlier-described peat bogs in both land lots there has been a history of fire but unlike them the ground is firm and there is no wire rush, tangle fern, bog pine nor *D. palustre*.

The terrace drop over is dominated by regenerating forest with species that include kahikatea, kamahi, marbleleaf, totara species, wineberry and tree ferns. These contribute to the scenery along Thomas Brunner Drive.

The block of pine forest occurs on a southward extension of the pakihi.

2(c) The vegetation of the remainder of Lot 4

Between Lot 3 and the pine plantation the gully of Glenn Creek consists of strongly regenerating red beech forest with kahikatea, usually of only up to pole size. There are also areas of manuka, kanuka and divaricating shrubs near the edges, as well as local infestations of Himalayan honeysuckle gorse and broom. Such vegetation becomes more common along the south edge of Lot 3. As one approaches the peat bog, species such as mountain toatoa, silver pine, kaikawaka, weeping matipo and small-leaved *Coprosma* spp. become more common, entirely replacing red beech. Figure 5 shows some of the vegetation and landforms of Lot 4.



FIGURE 5: Looking southeast from the gravel road- right of way across the freshly developed Lot 3 toward Glenn Creek in Lot 4 and moraine hills beyond.

There are also fire-induced clearings adjacent to Glenn Creek consisting of rushland that are gradually being recolonised by manuka and other woody shrubs (see Figure 5).

Moraine hills along the south boundary of Lot 4 and the edges of the peat bog that have not been burned, consist of logged rimu forest with all size classes of this species represented. Scattered emergent rimu have been left standing because of defects. Canopy species present are miro, southern rata, kamahi quintinia, lancewood, hinau, toro, broadleaf, with tree ferns, rohutu and

horopito in the understorey. Umbrella fern (*Gleichenia cunninghamii*) and crown fern are dominant on the ground. This vegetation is extensive southward of Lot 4 on land owned by Pacific Forest Holdings Ltd (Stengs 2009).

FAUNA

Birds seen or heard during field visits were Australasian harrier, fernbird, tui, bellbird, kereru, silvereye, yellow-breasted tit, grey warbler, western weka, fantail and blackbird.

A total of 17 Gee Minnow funnel traps set one night showed that koura were common within larger ponds in the Lot 2 peat bog. Figure 3 shows one of the capture sites). No fish were caught, although one galaxiid-like fish about 6 cm long was seen on the day the traps were put in position

Introduced mammals include possum, pigs, red deer, mustelids, mice, rats and hare. There are no domestic stock access issues.

ADJOINING LAND USE

Around the peripheries of the peat bog in Lot 2 there are narrow belts of manuka and kanuka shrubland, with some areas of tall forest before giving way to a pine plantation and rough pasture.

Land north of Lot 4 in the Arnold Valley consists of farmland. Eastward are Thomas Brunner Drive, as well as regenerating forest. Such forest is more extensive south of Lot 4. Vegetation clearance as well as humping and hollowing have occurred in the southern part of Lot 2 (the head of Glenn Creek) and all of Lot 3 in preparation for sowing into pasture.

ECOLOGICAL SIGNIFICANCE OF THE PORTIONS OF LAND ON OFFER

(a) Peat bogs

When considering “representativeness” or ecological “significance” it is important to understand that peat bogs are a distinctive wetland type that form in shallow wet basins because of accumulation of organic matter over time. “Pakihi” are a different wetland type because they are situated on fluvio-glacial outwash terraces with perched water tables and shallow gley-podzol soils (see Johnson and Gerbeaux 2004 p.34). There is no peat on the pakihi in the north east of Lot 4. These wetland forms each have different vegetation types. For those reasons, when considering representativeness it is necessary to treat them individually.

At all levels of LENZ (Land Environments of New Zealand, Leathwick *et. al.* 2002), was found to be too coarse for assessing significance, particularly with respect to the peat bogs. On both lots they are mapped as Environment O1.4, (characteristic of glacial moraines) LENZ was therefore found unsuitable for assessing representativeness or significance.

It is however known that peat bogs have become underrepresented nationally due to land development. In the Grey catchment the only other examples of peat bog known by the writer to be floristically similar to those on Mr Visser’s land are near Springs Junction. Therefore the peat bogs on both lots of Mr Visser’s land, including their shrubland and forested peripheries, are of high conservation value.

(b) Lot 4, except the peat bog and pine forest

A large portion of the remaining indigenous vegetation communities outside of the peat bog have significant conservation values, including those containing beech and kahikatea in the lower Glenn Creek valley. As these are within Tasman Accord boundaries further comment is under “Conservation Options” below.

Outside the area covered by the Tasman Accord is the pakihi in the north east corner including pine forest. Such Otiran glacial landforms are well represented in the Grey Valley and the Hokitika area (see Nathan *et. al.* 2002).

CONSERVATION OPTIONS

The 35 ha peat bog in Lot 2 is part of a larger 321 ha land parcel. If the Department decided to purchase it, subdivision of Lot 2 would be required. The benefit of purchase or its acquisition via a land exchange would be legal protection and “control” by the Department. However as Mr Visser has agreed to withdraw the peat bog from development, at worst this bog will not be developed while it remains under his ownership. If a mooted land exchange does not eventuate, the best option is likely to be a QE II conservation covenant, a move that would ensure its preservation in perpetuity without cost to the Department. However funding for weed control (removal of pines) would be required. Whatever option is chosen any protected area should include the indigenous shrubland and forest communities around the bog peripheries. Their outer limits are partly along physical and partly cadastral boundaries.

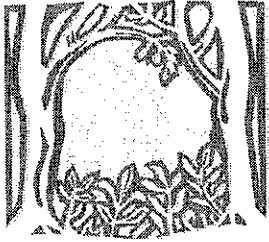
Most of Lot 4, including the peat bog, is already protected under the Tasman Accord, which is a conservation covenant under the Reserves Act, 1977. Purchase of Tasman Accord land is therefore unnecessary. Portions of Lot 4 outside the Accord area include the pakihi and the terrace drop over beside Thomas Brunner Drive. While these could be purchased by the Department or acquired via a land exchange, their conservation values are insufficient to warrant this. It may be worthwhile to advocate for a conservation covenant for them, except for the pine forest.

RECOMMENDATIONS

1. Pursue legal protection of the peat bog and surrounding indigenous vegetation in Lot 2.
2. Recognise that portions of Lot 4 that are already legally protected under the Tasman Accord, and thus require no further action.

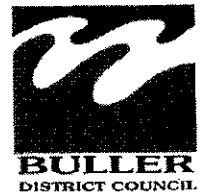
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Significant Natural Area Assessment and Protection

This document has been prepared by the West Coast Significant Natural Areas Project and is based on the West Coast councils' (Buller, Grey and Westland District Councils and the West Coast Regional Council) experiences in undertaking an exercise to meet the requirements of section 6(c) Resource Management Act.



August 2001

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Sustainable Management Fund Project 8077

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Glossary of acronyms used in this report

DOC	Department of Conservation
ED	ecological district
GIS	geographical information system
IUCN	International Union for the Conservation of Nature
LCDB	Land Cover Database
LINZ	Land Information New Zealand
MAF	Ministry of Agriculture and Forestry
NGO	non-governmental organisation
NIWA	National Institute of Water and Atmospheric Science
PNAP	Protected Natural Areas Programme
RMA	Resource Management Act 1991
SMF	Sustainable Management Fund (of Ministry for the Environment)
SNA	significant natural area
SOE	state owned enterprise
TWC	Timberlands West Coast Ltd.
WERI	Wetlands of Ecological and Regional Importance

1. Introduction

This document has been prepared to help councils and other organisations meet the requirements of section 6(c) of the Resource Management Act.

Section 6(c) Resource Management Act (RMA) states:

6. Matters of national importance – *In achieving the propose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:*

(c) *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna*

The document starts by explaining how you get started in setting up such an exercise so that it meets statutory requirements. It then sets out the main components of the exercise that need to be undertaken, and provides guidance on how to undertake each of these components. Examples from the West Coast Significant Natural Areas (SNA) Project and good practice recommendations are included.

West Coast SNA Project

This document describes a process developed by the West Coast councils, which can be used by other councils. A separate document describes and evaluates the West Coast SNA Project.

The West Coast SNA Project was set up to develop:

- a cost-effective staged process to address section 6 (c) Resource Management Act responsibilities
- a model that could easily be used by other councils.

The Project received funding from the Sustainable Management Fund that is administered by the Ministry for the Environment as well as cash contributions from the four West Coast councils, the Department of Conservation (DOC) and Timberlands West Coast Limited (TWC). The four councils, DOC and TWC also contributed staff time and expertise along with Federated Farmers – Top of the South, Federated Mountain Clubs, Ministry of Agriculture and Forestry, Ministry for the Environment, New Zealand Landcare Trust, Royal Forest and Bird Protection Society, Te Rūnanga o Ngāi Tahu, Te Rūnanga o Makawhio, Te Runaka o Kati Waewae and West Coast Tai Poutini Conservation Board.

Components of the Exercise

It is useful to divide a section 6(c) exercise up and methodically work through the various components. The exercise can be separated into six components. These components are an artificial construction because the exercise is not being undertaken to develop discrete packages of outcomes or stages, but rather a number of strands of research and actions are being undertaken in a logical progression. The consultation component binds all the strands together during the term of the exercise as an outcome is worked towards.

The six "components" of the exercise are:

1. **Initial set up** – setting up the exercise, its objectives, timeframes and people involved
2. **Consultation** – defining with whom, what about, how, and when consultation is to be undertaken
3. **Information** – collecting and collating information on indigenous vegetation and habitat resources/values, land tenure and deciding on how to fill information gaps

4. **Defining and assessing significance** – applying a methodology that defines what is significant and then assessing what sites meet the criteria
5. **Providing for protection** – providing methods to protect the Significant Natural Areas (SNAs)
6. **Implementation/monitoring/review** – actioning the results of the exercise, monitoring its effectiveness and suitability, reviewing with changing circumstances or as a result of monitoring/new information.

Components 1 and 2 cover background material that is necessary for starting a RMA section 6(c) exercise. Components 3 and 4 are about the “recognising” part of section 6(c) and component 5 is about the “providing for protection” part. The final component is something that should take place throughout the whole exercise.

Good Practices Recommendations

- Break the exercise into its major components and work through how each component will be undertaken, ie, who will be involved, timeframes, what resources are required.
- Monitor progress of each component so that the exercise stays on track.

Separating “Significance Assessment” from “Providing for Protection”

The Resource Management Act requires councils to both *recognise* and *provide for* the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna (these areas are commonly called significant natural areas or SNAs). The RMA does not, however, give specific guidance for identifying SNAs nor does it stipulate how much protection is required to achieve the sustainable management purpose of the Act. It is left to individual councils to determine how they can best meet these statutory requirements in their own district.¹

To meet the requirements of section 6(c) a council must first be able to identify what indigenous vegetation and habitats of indigenous fauna are significant. This involves (i) setting out the criteria that will define significance for the particular exercise and (ii) applying these criteria to areas of indigenous vegetation and habitat and identifying which areas are significant.

A council must then “provide for the protection” of the significant areas. “Providing for protection” can be achieved through the use of a variety of different methods (often referred to as “mechanisms” or “tools”).

The consideration of options for how a significant area can be protected is a key aspect of a section 6(c) exercise. Keeping an open mind about options and discussing a range or suite of methods is recommended. By not predetermining the outcome, meaningful consultation can take place with landowners² and the wider community of interest. This approach is essential in terms of the requirements of section 32 RMA if any of the options are to be included in the District Plan.

Separation of the identification and protection parts of a section 6(c) exercise is also important because the former is a relatively objective ecological exercise while the latter is more subjective and involves political considerations. It was our experience that this separation helped obtain initial landowner “buy-in” to the Project as they did not feel as alienated as they might have, had everything occurred together. Landowners are still most interested in the “providing for protection” part of the exercise and councils need to make timely decisions on this after consultation.

¹ Material provided by the Ministry for the Environment from papers prepared about section 6(c) implementation. Future reference to this material will be just “from papers by the Ministry for the Environment”.

² Landowner is used as a generic term in this document to cover anyone who is in charge of a piece of land including lessees and occupiers etc.

GOOD PRACTICE RECOMMENDATIONS

- Apply clear criteria to determine significance.
- Separate the identification of areas that are significant from the "providing for protection" of the significant areas.
- While the first stage (identification) is a relatively objective ecological process, the second stage (providing for protection) is subjective and the local authority should tailor this to the particular circumstances of the community and natural environment of its district or region.
- Do not predetermine how each step will be undertaken – use consultation to determine the best approach for the particular circumstances.

2. Initial Set Up

Getting Started

Before embarking on a section 6(c) exercise a number of key questions must be asked. Subsequent decisions made will define the parameters of the exercise. Any parameters established, however, must be flexible enough to be altered if suggested by consultation.

1. Will the council undertake the exercise by itself or combine with other councils or agencies (such as iwi)?

Advantages of a joint exercise could include:

- cost savings through information sharing such as establishing linkages with other relevant local, regional or national projects
- cost savings through the use of one ecologist familiar with the whole region
- relationship building with other parties, eg, iwi whose rohe covers more than just one district.

Disadvantages of a joint exercise could include:

- the councils being seen as not owning the exercise
- complicated relationships with landowners (eg, bringing "baggage" from another agency into the equation)
- blurring of the objectives of the exercise
- conflict between the agencies involved (if they are not pursuing the same objectives).

Any disadvantages can be addressed by setting clear objectives and providing good project management.

2. Are there benefits in combining the exercise with consideration of other aspects of Part II RMA?

For example, in some locations, it may be appropriate to identify outstanding natural features and landscapes as well as SNAs. The courts have stated on a number of occasions that Part II RMA needs to be read as a whole and that the matters listed in section 6 should not be read in isolation. Sections 6, 7 and 8 of the Act are integral to achieving the sustainable management of natural and physical resources. Part II matters may work together in strengthening a case, in support of, or against, a particular proposal. For example, a particular site may have ecological values, natural character values, landscape values and iwi values.³

N.B. If the exercise is combined or shared with another process or agency, the council still has to own the exercise and it has to be clearly undertaken for RMA purposes, ie, sustainable management, in order to be credible with landowners.

3. How will public conservation land be dealt with? Public conservation land needs to be considered as part of the identification of significant sites. But public conservation land may not need to be considered when looking at mechanisms that will provide for protection of significant sites, as it is already protected.

³ From papers by the Ministry for the Environment. Cases to refer to include:
NZ Rail v Marlborough District Council [1994] NZRMA 70
Royal Forest and Bird Protection Society v Manawatu-Wanganui Regional Council [1996] NZRMA 241
Harrison v Tasman District Council [1994] NZRMA 193
Smythe & Ors v North Shore City Council and Others A58/96

Working through section 32 RMA is an integral part of the overall process of developing District Plan provisions. If changes to the District Plan are likely to be an outcome of the exercise remember that key decisions need to be recorded. The Ministry for the Environment publication *What are the options?* (July 2000) provides a step-by-step guide to how to meet the requirements of this section of the RMA.

GOOD PRACTICE RECOMMENDATIONS

- Seek cooperation with other councils/agencies.
- Look for linkages with other relevant local, regional or national projects.
- Own the exercise – both by doing it and being perceived to be in charge.
- Prepare a brief for the exercise that sets out clear objectives and assigns roles, timeframes and target dates.
- Remember section 32 RMA requirements and plan early on how they will be integrated into the exercise.
- Look for spin-offs such as information sharing or involvement/support for other projects.

Setting up a Project Team

It is essential that a focused project team be established at the outset, and that the same team sees the exercise through to completion (the project team is referred to as the core group in this report). The key person within this core group is the project coordinator who drives the exercise and ensures that the momentum is maintained. This person acts as the key contact person for all parties and ensures that information is disseminated. The project coordinator might be either a council staff member or an independent contractor. In smaller local authorities the project coordinator could also take on the more hands-on role of working with the ecologist and landowners. In larger local authorities, other district planning staff can undertake the hands-on role of working with the ecologist and landowners.

A core group should consist of:

- a project manager
- a project coordinator
- an ecologist
- a GIS operator
- councillor/s or relevant council committee member/s.

Role of project manager

Senior level management, including:

- providing sufficient financial and staff resources
- managing staff workloads so momentum of exercise continues
- attending core group meetings for first-hand knowledge of the exercise
- briefing senior management and regularly informing councillors about progress and issues
- setting timetables for the work programme in consultation with the project coordinator and planning staff.

Role of project coordinator

Day-to-day management of the exercise, including:

- liaising with all parties involved, including landowners
- taking responsibility for all communication about the exercise
- undertaking tasks and/or overseeing the district planning team undertaking tasks
- ensuring momentum of the exercise continues and that deadlines are met
- working with the ecologist
- coordinating the longer term processes of implementation, monitoring and review.

Role of ecologist

Providing specialist ecological advice including:

- assessing information requirements
- assessing and identifying significant sites in the district/region
- presenting information about significant sites to landowners
- advising landowners and the council on how significant sites could be protected
- liaising with the GIS operator.

The ecologist needs the following personal attributes:

- familiarity with the district/region
- the ability to communicate equally well with councillors and landowners
- the ability to speak with authority and credibility to landowners.

Role of GIS operator

To prepare GIS maps and liaise with the ecologist.

Role of councillor/s⁴

To provide the link between council staff and the other councillors.

To be available at public forums and as a contact person for residents and ratepayers.

4 Note: If the councillors in the core group own property in the areas that are being surveyed and they subsequently become involved in council deliberations (such as a plan change) on the matter, they need to avoid perceptions of pre-determination or bias during the exercise (ie, when they are in the core group). They may need to seek Audit NZ exemptions under the Local Authorities (Members Interest) Act if they want to be involved in any subsequent decision making. Legal advice on this matter at the start of the exercise could avoid problems further through the exercise.

GOOD PRACTICE RECOMMENDATIONS

- The roles of the members of the core group should be clearly defined.
- Allocate a budget and timeframe for the exercise.
- Regular performance reporting helps keep the exercise focused.
- The coordinator is the key position and it is desirable that the person remains the same throughout the exercise.
- The coordinator needs to ensure regular contact is kept with participants in the exercise – email is a cheap and effective method of keeping in contact.
- Choose an ecologist who has excellent communication skills as well as good local ecological knowledge.
- Councillor/s should be included in the core group and fully involved in the exercise, but note Local Authorities (Members Interest) Act implications.

3. Consultation

A landmark Resource Management Act case⁵ defined consultation as:

“the statement of a proposal not yet finally decided upon, listening to what others have to say, considering their responses and then deciding what will be done.”

Consultation involves seeking out and considering a range of views before making a decision.

Elements of Consultation

The Wellington International Airport Case referred to above defined some essential elements of consultation that apply to all parties involved in the consultation process. These essential elements of consultation include:

- the provision of sufficient information to allow informed discussion
- sufficient time for participation
- preparedness for participation
- preparedness to listen and remain open-minded
- genuine consideration of views and willingness to change.

Consultation is a two-way process and it is helpful to translate these elements of consultation into rights and responsibilities for the different participants. This allows some ground rules about the consultation process to be established.

Table 1. Rights and Responsibilities for Consultation⁶

Those being consulted have the right to...	The core group has the responsibility to...
<ul style="list-style-type: none"> • Be given adequate timeframes 	<ul style="list-style-type: none"> • Allow sufficient time for the consultation process
<ul style="list-style-type: none"> • Know what the core group intends to do with their views (eg, is this just testing the water, or will this affect a decision?) 	<ul style="list-style-type: none"> • Provide the community with clear information about what will be done with their views
<ul style="list-style-type: none"> • Provide their views in a manner most suited to their members • Retain ownership of cultural and intellectual property 	<ul style="list-style-type: none"> • Provide a range of mechanisms for receiving views (eg, meetings, hui, written submissions) and mechanisms to deal with “sensitive” information
<ul style="list-style-type: none"> • Know what parts of the project will be subject to consultation 	<ul style="list-style-type: none"> • Explain any non-negotiable or fixed aspects of the exercise
<ul style="list-style-type: none"> • Know the outcome of the consultation process 	<ul style="list-style-type: none"> • Inform participants of the outcome of consultation • Be willing to explain how decisions were made
<ul style="list-style-type: none"> • Appoint their own spokesperson 	<ul style="list-style-type: none"> • Work with the designated spokespeople

⁵ Wellington International Airport Ltd v Air NZ [1991] 1 NZLR 671 (Court of Appeal).

⁶ Adapted from Department of Conservation Draft Consultation Guidelines – July 1999.

The core group has the right to...	Those being consulted have the responsibility to...
<ul style="list-style-type: none"> • Determine the objectives of the consultation process 	<ul style="list-style-type: none"> • Respect the constraints placed by the core group
<ul style="list-style-type: none"> • Impose, if necessary, a timetable 	<ul style="list-style-type: none"> • Meet deadlines
<ul style="list-style-type: none"> • Publish submissions 	<ul style="list-style-type: none"> • Specify if they wish any part of their submission to be kept confidential
<ul style="list-style-type: none"> • Determine what parts of the exercise are subject to consultation and which are non-negotiable or fixed 	<ul style="list-style-type: none"> • Accept that the issues being consulted on may be bound by legislative requirements and resourcing constraints
<ul style="list-style-type: none"> • Make final decisions/recommendations to the councils 	<ul style="list-style-type: none"> • Accept that the councils have the right to make the final decision

It should be remembered that the application of these rights and responsibilities must still come within the parameters of what has been defined by case law about consultation.

Publicity and Information

It is also important to consider how the exercise will be publicised and information from the exercise disseminated. Although this does not constitute consultation, successful consultation cannot take place unless there is an awareness of what the exercise is about. Individuals and groups with an interest in the exercise need to know what is happening at different points, who is involved and who can be contacted for more information.

GOOD PRACTICE RECOMMENDATIONS

- Remember the elements of good consultation and incorporate them into the exercise.
- Set out some ground rules for all participants (including the council).
- Think about publicity and information dissemination alongside consultation.

A Consultation Strategy

Consultation is a process rather than a single event. This process can be described in four main stages:

1. Initiating contact and providing information
2. Defining consultation methods and undertaking consultation
3. Providing feedback to groups and individuals
4. Leaving the way open for consultation to be ongoing

In order to develop a consultation strategy three fundamental questions need to be answered: **why** consult, **who** to consult and **when** to consult?

Why Consult?

There are a number of reasons why consultation should be undertaken as a key part of the section 6(c) exercise, including:

- to get a better outcome in terms of identification and protection of SNAs by
 - fostering ongoing relationships, mutual understanding and trust between parties
 - encouraging community ownership of the outcomes

- getting a broader range of views, values and management options
- resolving conflicts and misunderstandings at an early stage
- to comply with consultation requirements in the RMA.

Who to consult

It is important to consider who is likely to be affected by and have an interest in this exercise and its outcomes. These individuals and groups are often called “interested parties”. Iwi are not incorporated with the interested parties as they have a greater standing in the exercise because of their special status under the RMA.

Interested parties in the consultation process include:

- landowners
- Crown agencies
- interest groups
- community.

Iwi and these interested parties are not mutually exclusive and some individuals or groups may fall into one or more of the interested parties. The consultation strategy should provide for the integration of consultation between all parties in order to promote understanding between groups.

Some of the key questions to then ask are:

- *What groups (that represent iwi and these interested parties) already exist that could be a focus for consultation?*
- *Do groups need to be encouraged to be formed to assist with the consultation process?*

WHO ARE THE INTERESTED PARTIES?

Landowners

This group includes the key interested parties – owners of private (freehold) land (including Maori Land), lessees of land, government departments that administer Crown land (eg, Ministry of Commerce, Land Information New Zealand (LINZ) and Department of Conservation), SOEs (eg, Landcorp), Crown agencies (eg, Fish and Game New Zealand).

Iwi

The appropriate iwi authority needs to be identified for the district being considered.

Tangata whenua have a greater standing than the general public in this exercise because of their special status under the RMA. Iwi may also be landowners within the district where the exercise is being undertaken.

Crown Agencies

This could include Crown agencies that own land, and other agencies with an interest in the management of land and biodiversity. For example, the Ministry of Agriculture and Forestry, Department of Conservation, LINZ, the Ministry for the Environment and the Nature Heritage Fund.

Interest groups

Interest groups are organisations that could have an interest in the exercise because of the individuals or industries they represent, the objectives that the group seeks to achieve, or the statutory function they have been set up to carry out. These groups may seek to be involved to varying degrees at different stages of the exercise.

The following is a list of interest groups that are generally active in all districts in New Zealand. There will be other unidentified interest groups (particularly local interest groups) that may want to be involved. The list should be constantly updated throughout the term of the exercise.

- Alpine/tramping clubs
- Commercial Gold Miners' Association
- Deerstalkers Association
- Farm Forestry Association
- Federated Mountain Clubs
- Historic Places Trust
- New Zealand Landcare Trust
- Royal Forest and Bird Protection Society
- Coal Mining Federation
- Conservation Board
- Ecologic Foundation
- Federated Farmers
- Fish and Game New Zealand
- Institute of Forestry
- Queen Elizabeth II National Trust
- Universities/research agencies

The Community

The community can be defined as everyone in the district/region not included in the other interested groups. Consultation should concentrate on the local community and not the rest of New Zealand outside the district/region. General members of the public outside the district/region are considered to be covered by national interest groups such as Federated Farmers, Federated Mountain Clubs and Royal Forest and Bird Protection Society.

When to consult?

There is no set timetable for consultation, but it must be consistent with the elements of good consultation set out above. This would suggest consultation should be as early as possible and it should continue throughout the exercise.

There will be different consultation requirements for iwi and the different interested parties. A consultation strategy that establishes these requirements and provides some details on what consultation will be undertaken is a good way to provide a framework for ongoing consultation.

A reference group

It will sometimes be useful to bring iwi and all the interested parties together. There are various levels of involvement that could be appropriate, eg, groups actively involved in all aspects of the exercise or groups brought together to be informed about the exercise and progress on a regular basis. The objectives for setting up a reference group could be any of the following:

To involve iwi and the interested parties in the district/region in the exercise so that:

- they are kept informed about the exercise
- their expertise can be utilised
- a forum for debate is provided
- they can use their own networks to disseminate information about the exercise
- ownership of the exercise is promoted
- there is an understanding of others' points of view
- duplication of consultation effort by the council is avoided

Membership of the reference group should be decided by the core group but care should be taken to ensure that the group is not perceived as separatist or that setting up the group becomes divisive. There is no one answer to who should be involved; this will depend on the types of groups active in the district/region and the objectives that the council wishes to achieve by setting up the group.

Suggested members of a reference group are:

- councillors
- iwi
- landowner groups such as Federated Farmers
- national environmental NGOs such as Royal Forest and Bird Protection Society
- local environmental NGOs such as local green groups
- national or local sector or industry groups with a particular interest in indigenous vegetation and habitats
- Department of Conservation
- Ministry of Agriculture and Forestry
- Ministry for the Environment
- Conservation Board.

WEST COAST SNA PROJECT

REFERENCE GROUP

The West Coast Project built consultation into the Project right from the start by involving representatives of the key interested parties in the development of the Project and the application to the Sustainable Management Fund. The involvement of these groups was formalised within the Project by the establishment of the "Project Reference Group". This group was made up of the organisations/groups that provided support for the SMF application and other key interested parties.

Members of the original group were:

- Buller Conservation Group
- Federated Farmers
- Ministry of Agriculture and Forestry
- Te Runaka o Kati Waewae
- Te Rūnanga o Ngāi Tahu
- West Coast Tai Poutini Conservation Board.
- Department of Conservation
- Ministry for the Environment
- Royal Forest and Bird Protection Society
- Te Rūnanga o Makawhio
- Timberlands West Coast Ltd

Membership changed during the Project with Buller Conservation Group withdrawing from the Project and the Federated Mountain Club and New Zealand Landcare Trust joining.

The Project Reference Group was involved in and contributed to the development of all components of the Project. This was achieved by holding workshops where the components of the Project were discussed and agreement reached on how they would be undertaken on the West Coast. The participants in the Project indicated in the Project evaluation questionnaire that having a Reference Group was one of the most supported aspects of the Project. Reasons given for this included that it kept everyone informed and provided a forum for debate and ownership of the Project by a wide range of interested parties. It also provided for the exchange of ideas and understanding of other points of view.

Meetings

A section 6(c) exercise brings together a wide range of groups and individuals with many different perspectives on issues. Meetings/workshops need to provide an opportunity for these divergent views to be expressed, listened to, debated and understood. This is essential if councils are to make informed decisions that seek to address the significant resource management issues of their district.

The following standards are good practice for all meetings/workshops run during the exercise:

- **Agenda** – The agenda is pre-circulated and has written objective/s and expected outcome/s.
- **Facilitator** – Each meeting is, ideally, facilitated by someone from the core group who enforces general meeting protocols and is always in charge of the meeting.
- **Record of meeting** – A record of each meeting is written up and circulated to all those involved in that group whether they attend or not.
- **Meeting Code of Conduct** – This code sets out how meetings will be run to ensure meetings are productive; for example “participants to respect others’ rights and act in a manner that is conducive to full and frank discussion”.

The meetings/workshops undertaken as part of a section 6(c) exercise with the different groups and individuals would not generally be covered by the Local Government Official Information and Meetings Act 1987 because the group meeting would not have been delegated any powers to make decisions on behalf of the council. These meetings would only make recommendations for the council to consider.

WEST COAST SNA PROJECT

MEETING CODE OF CONDUCT

It was recognised that the different groups and individuals involved in the Reference Group of the West Coast Project would have vastly different viewpoints. All parties agreed to the development of a Meeting Code of Conduct which was prepared with input from all the participants and used throughout the Project. It covered expectations of participants at the meetings, how the meeting would be conducted, and a media policy.

Meeting Code of Conduct

Purpose: To assist in making SNA Project meetings productive by ensuring participants respect others’ rights and act in a manner that is conducive to full and frank discussions that contribute to meeting the objectives of the project.

Participants will:

1. Respect everyone’s right to have an opinion.
2. Debate the issues not the personalities or organisations.
3. Respect an individual’s or organisation’s right to have objectives that may differ from their own.
4. Enable opinions/views that differ from their own to be debated/listened to and not interrupted.
5. Not disclose any information from a meeting that it is agreed should be confidential to the purposes of that meeting.
6. Clear any statements to be made to the media with the project manager or project coordinator before releasing/making a statement about the meeting/project.
7. Agree to act in a manner (both at meetings and outside meetings) that does not seek to use the Project to further their own personal/group/organisational objectives and undermine the Project’s objectives, that is, work as a team for the objectives of the Project while involved with the Project.

The meeting will:

1. Be chaired or facilitated by someone from the Core Group.
2. Be conducted in such a way as to allow full and frank discussions and to ensure confidentiality of information as necessary.
3. Have a clear set of objectives/outcomes that are circulated to all participants prior to the meeting.
4. Generally be attended by invited participants unless it is advertised as a public meeting.
5. Have a record of the meeting prepared and distributed to all participants and those on the Project mailing list, after the meeting.

GOOD PRACTICE RECOMMENDATIONS

- Establish protocols for meetings where individuals and groups with widely divergent views are participating can contribute to express their views. The key components the protocols should include are:
 - respecting others' opinions and their right to express them
 - how to deal with confidential information
 - working as a group while involved in the exercise.
- Think about how to deal with media enquiries and who will be the spokesperson for the exercise.

Consultation and Confidentiality

A key issue that most section 6(c) exercises are going to have to address at some stage is how to deal with confidential information. It is likely that during the exercise some information collected will be sensitive. The consultative strategy or meeting code of conduct may be able to address some of the issues. In other situations it may not be appropriate to involve the reference group, particularly at an early stage of discussions with landowners. Discussion and agreement on how issues of confidentiality will be addressed is essential early on in the exercise.

GOOD PRACTICE RECOMMENDATIONS

- Discuss and agree with any reference group (early on in the exercise) how sensitive information will be handled, particularly with respect to discussions with landowners.

Preparing a Consultation Strategy

The consultation strategy should provide for good information flows, opportunities for iwi and interested parties to initiate consultation and an indication of the specific points in the exercise when consultation will be undertaken.

A strategy for iwi and each interested party can be prepared by defining:

1. The **OBJECTIVE/S** for consultation with the group.
2. **WHAT** consultation is about for each component of the exercise and **WHAT** information the exercise needs to provide.

3. **WHEN** consultation should be undertaken for each component of the exercise.
4. **HOW** consultation should be undertaken for each component of the exercise.
5. **WHO** should undertake consultation for each component of the exercise.

Integration of strategies

The consultation strategy will consist of an individual strategy for each iwi and interested party, setting out the different requirements for consulting with each group. It should also include ways that consultation will be undertaken with these different groups together. Consultation should not be undertaken with each group in isolation.

The provision of information and opportunities to consult with groups together can help to increase the understanding of a situation from a different perspective, eg, interest group members gaining understanding of a landowner's perspective on an issue by attending a field day.

The following key aspects of the strategies provide for integration.

- A reference group contains representatives from iwi and all the interested parties.
- Newsletters and information sheets are provided.
- Workshop participants are from iwi and all interested parties.
- Field days/field trips on "defining SNAs" and "methods to provide for their protection" include representatives from iwi and all interested parties.
- Councillors are "key contact" people for the exercise, as they may also be representatives of, or have links with, iwi or a number of the interested parties.

Record keeping and acknowledgement of input

A record of consultation events such as meetings should be kept by the council and a copy provided to the individual or group that was being consulted. The outcome or decision made on a particular issue should also be provided to the parties who provided input.

Monitoring and review

The consultation strategy can not be prepared and implemented without taking into account its effectiveness and any changing circumstances during the term of the exercise. For these reasons the strategy should be subject to regular monitoring, and be reviewed as required.

Monitoring

The strategy should be continuously monitored. Some of the indicators that could be used to monitor the success of the strategy are that:

- feedback is received
- publicity or articles by other parties contain factually correct information about the exercise
- input to the exercise is received from a wide range of sources.

Review

This strategy should be reviewed in whole or in part:

- if monitoring indicates a need
- as each component of the exercise is undertaken
- if there is a change in circumstances or parties involved
- if it is suggested/requested by a party to the exercise.

The core group should carry out the review, with input from any reference group and any other party who may want to contribute.

An updated version of the strategy should then be circulated to all parties.

GOOD PRACTICE RECOMMENDATIONS

- A consultation strategy helps to identify key players that should be consulted, provides an ongoing record and structure to undertake consultation within, and sets up a timeline for a comprehensive consultation process.
- Use consultation to foster understanding between all parties as well as between the council and other parties.
- A reference group can be useful to bring together iwi and interested parties on a regular basis.
- The most important interested party is the landowners' group. Put the highest priority on achieving good consultation/communication with this group. Consult early in the exercise with landowners and keep consulting with them throughout the exercise.
- Use consultation to establish networks with individuals and groups interested in the exercise then build on and support them so that they become a way to disseminate information and gather support for what is happening.

WEST COAST SNA PROJECT

Consultation with landowners

The objective of consultation with landowners was to inform them and provide opportunities for involvement in the Project so that there were "no surprises" and so that trust and cooperation was created between parties.

Letters were sent to all landowners in the three trial areas. This letter told them about the Project, who to contact for more information and when they were likely to be contacted again. Council staff and the project coordinator also attended Federated Farmers meetings to explain what the Project was about. There was some publicity in the local newspapers but it was hard to get the reporters interested when the Project was not controversial.

When the representativeness criteria had been applied to the ecological district (ED) another letter and a report that detailed the vegetation types that once occurred and now occur in the ED was sent to all landowners in the trial EDs. This report highlighted the types of vegetation that were likely to be identified as significant.

When the possible SNA sites had been identified, a letter, phone call and personal visits were used to inform landowners with a site on their property. Permission for a site visit was sought and where it was obtained, the landowner discussed the site with the ecologist and often accompanied them on the inspection.

A draft report on each site was then sent to the landowner, containing a summary of the discussions about the site, details about what was found on the site, and the assessment of the site against the criteria used to define significance. It also included recommendations on boundaries, including any changes from the original area. The landowner had the opportunity to provide any comments on the draft report back to the council and then the report was finalised.

Some lessons learnt about consultation/communication with landowners:

- Working with landowners is time-consuming but very rewarding. Best results were obtained where the council staff and a councillor visited the landowner before the ecologist visited.
- Trust has to be established between the parties at a very early stage in the exercise. Keeping information about individual sites confidential between the council and the landowner assisted in establishing and maintaining a positive relationship.

- Timing was a big issue, with the ecologist and council staff having to fit contacts around landowners' busy schedules.
- Written information sent to landowners was not universally read and was often discarded, as it was perceived as "just more information from the council". Some landowners felt that the level of consultation about the Project was inadequate. The West Coast does not have good farming networks such as provided by Federated Farmers elsewhere and it was difficult to keep all landowners fully informed.
- Good tenure maps and recent aerial photos were invaluable when discussing possible SNA sites with landowners.
- Different sectors of the rural community had different levels of support of the Project (eg, dairy farmers appeared more supportive than other farmers). There was also a difference between farmers and landowners of smallholdings. This highlights the need to recognise the externalities affecting the SNA exercise.
- Separation of "identification" and "providing for protection" of possible SNAs allows for informed discussion about site values without having to consider the more contentious process of providing for protection. Having an open mind about what will be used to "provide for protection" allows frank discussion with landowners about options for protection.

4. Information

The key to undertaking a successful RMA section 6(c) assessment exercise is good information. Without good information it is impossible to make informed decisions about areas that might be significant or their subsequent management. This section addresses the issues of information; what information is available? how old is it? who has it? how much does it cost? and is it relevant? These are all questions that the council has to work through in undertaking a section 6(c) assessment exercise. In particular, this section focuses on how councils might find, access and manage the information needed to successfully identify and provide for the protection of SNAs.

The Approach

Information can be used at two levels in the significance assessment exercise. At the regional level information is used as a "sieve" to narrow down the areas that may be of interest. At the second level, information is for confirming specifics about individual sites and assessing sites of interest. For most councils, new information will have to be gathered on the site-specific scale, but a first order regional survey can usually be undertaken using existing information.

Many councils have only limited resources available to acquire information. Given this constraint, it is best to use existing information wherever possible – it is more cost effective and takes less time than commissioning new research.

The Purpose of Information

It is important to consider the purposes for which information will be used before embarking on collecting information. Collecting a lot of information with no particular purpose in mind will not be efficient. The purposes for which information is needed in the section 6(c) exercise include:

- providing the basis for making decisions (eg, what is significant vegetation and habitat and what isn't?)
- informing councils, communities and interest groups by providing knowledge and facts for policy formulation and for use in discussions/consultations with the community, landowners, etc
- educating councils, communities and interest groups about surroundings, ecological processes and concepts and about the wider context of their local "patch"
- providing mechanisms for management – eg, non-regulatory methods
- creating a spatial structure by allowing the district/region to be broken down into smaller units, eg, to assess representativeness
- monitoring and reporting to allow changes over time to be quantified.

Information is generally not single purpose. The same information can be used for several different purposes as long as care is taken to ensure it is only used for the purposes for which it was designed.

Information Types

The Ministry for the Environment has commissioned two reports (Froude 1999, Froude & Beanland 1999) that review national databases, environmental classification systems and spatial frameworks. The reports review technical and management aspects of classification systems, spatial frameworks and databases relevant to indicators for land, water, terrestrial biodiversity and freshwater biodiversity. They are very useful references for councils to use to ensure that the type of information they propose to use is appropriate for that purpose.

The reports categorise information into Classifications Systems, Spatial Frameworks and Databases. Information from these three categories of information, plus "background information", is useful for a section 6(c) exercise.

Classification systems are systematic arrangements of information using previously defined terminology. They partition and attempt to simplify the complexity of the environment by providing a basis for dividing it into ordered, rational and scientific units for further study or management (Froude & Beanland 1999). Examples include Ramsar Wetland Classification System, Soil Classification Systems, Newsome Vegetation Classes and Threatened Species Classification Systems.

Spatial frameworks are a combination of environmental attributes across landscapes rather than specific attributes such as soils or vegetation. They often operate at a less detailed (bio-regional) scale (Froude & Beanland 1999). Examples include Environmental Domains, Ecological Regions and Districts, Bio-climatic Zones and the New Zealand Land Resource Inventory and Land Use Categories.

A **database** is a collection of data, usually on a specific environmental attribute, collected over time and held together electronically or on paper/maps. Examples include the Land Cover Database, Geological Databases and the New Zealand Freshwater Fish Database. They allow for the identification of the spatial location of a particular natural resource or environmental attribute. Some databases (such as climate, soils and slope) have been combined in order to produce spatial frameworks such as the New Zealand Land Resource Inventory and, more recently, Environmental Domains.

Froude (1999) found that many databases are no longer funded or maintained and many are under review. Over time the usefulness of these databases will therefore decline. The age of databases is an important issue for councils to consider as the information may become out of date.

A fourth type of information that is required for significance assessment can be termed **background information**. This includes aerial photographs, topographical maps, and land tenure maps.

WEST COAST SNA PROJECT

INFORMATION USED AND ITS SOURCE

Regional level information

Environmental domains – Landcare Research and Ministry for the Environment

Land Cover Database – Ministry of Agriculture and Forestry

Geological and soil surveys – published maps and reports (eg, from NZ Geological Survey, Soil Bureau, Land Resources Division, Landcare Research, Geological and Nuclear Sciences)

Vegetation types – published maps and reports (eg, from NZ Forest Service, Botany Division, Landcare Research)

Ecological literature – published and unpublished books, papers and report (libraries and research agencies)

Local knowledge – ecologists, research scientists, conservation managers

Site-specific information

Wetlands of Ecological and Regional Importance – Department of Conservation

Sites of Special Wildlife Interest – Department of Conservation

Threatened Species Database – Department of Conservation

Ecological literature – published and unpublished books, papers and report (libraries and research agencies)

Local knowledge – ecologist, research scientists, conservation managers, landowners

Background information

Aerial photos – councils and Department of Conservation

Topographical maps – councils

Land tenure – councils

Where to Find Information

The Department of Conservation (DOC) is a major source of information on natural resources. The Ministry of Agriculture and Forestry (MAF) also holds information, primarily the Land Cover Database. The other main external sources of information are Crown Research Institutes such as NIWA and Landcare Research, and other research agencies such as universities. Government departments and Crown agencies usually hold information that is useful for the first order assessment of the region and/or district.

Detailed information about a particular site is usually harder to find. Government departments such as DOC have information such as that contained in the Sites of Special Wildlife Interest (SSWI) and Wetlands of Ecological and Regional Importance (WERI) databases. This information may be dated and may not have been checked for many years. It may also have been collected for a different purpose and needs to be reassessed before it is used.

Councils do hold some site-specific information, eg, in Assessments of Environmental Effects attached to resource consent applications and management plans for reserves. Tangata whenua also hold information about vegetation and habitats of particular places. This information may be held in an oral form and its disclosure may be sensitive.

Background information, such as land status and topographical information, is usually readily available and may already be held by the council.

It is important to note that much of the information that is available and directly relevant to the section 6(c) exercise comes from work undertaken by the different divisions of the former DSIR (eg, Geological Survey, Soil Survey, Botany Division, etc), the New Zealand Forest Service (including Forest Research Institute) and Ministry of Works and Development (including the Water and Soil Conservation Authority) – all government departments that no longer exist. Some of this work has been continued within the Crown Research Institutes (eg, Landcare Research, Geological and Nuclear Sciences) that have replaced the research functions of these departments, but councils need to check carefully to ensure that they do not miss invaluable old reports. Copies can usually be obtained through university/research institute libraries and from government departments such as DOC and MAF.

Assessment of Information

Some information lends itself to multi-purpose applications while other information is single-purpose and will only give reliable results when used for that purpose. It is therefore important to determine the "degree of fit" of the information that is proposed for use, in relation to the purpose. The following questions about the information need to be considered:

- Origins – date of collection, original purpose for collection?
- Applicability – is it being used for the same purpose/s as its original purpose?
- Technical aspects – how rigorous was the data collection and methodology, can it be manipulated, can it be reassessed/updated?
- Management aspects – who can have access to the information, are we allowed to manipulate/update data, are there any cost and copyright issues/restrictions?

It may take longer to do this assessment but the outcomes should be far more rigorous than just using information on its face value.

Managing Information

Information gathered needs to be managed so that it can be accessed again, updated as circumstances change, and be available for other related situations.

The West Coast councils developed a database where information sources can be stored. This database provides all the usual data about the information sources, such as where it is, how old it is, what it is and so on, as well as a technical and management assessment. This ensures that the purpose for which the information was collected is noted as well as any reliability or availability issues.

Given that much of the information that is used in assessing significance in terms of RMA section 6(c) is spatial, geographical information systems (GIS) are an invaluable management tool. In the West Coast Project we made extensive use of GIS to hold information on environmental domains, land cover and land tenure (see next section for details on how these different types of spatial information were used for assessing representativeness). The GIS was also used to incorporate this information with topographical data as a basis for developing field maps for assessing significance and defining SNAs.

GOOD PRACTICE RECOMMENDATIONS

- Identify different levels at which information can be used.
- Maximise use of existing information.
- Be clear about the purposes for which information will be used in the exercise.
- Be aware that some information is old, but can still be of value.
- Assess the “degree of fit” of information before using it.
- Develop a database for storing information.

5. Defining and Assessing Significance

Introduction

The definition of significance is the key underlying component of all section 6(c) assessments. It is therefore important to have a rigorous, objective and widely accepted and supported way of defining what is significant and how this will be applied to sites within the district or region of interest.

This section describes the approach taken by the West Coast SNA Project to defining significance. The decision on which approach to take was based on the large land area to be surveyed, the lack of up-to-date information and the need for cost effectiveness given the limited resources (rating base) of the West Coast councils. The approach taken is likely to be applicable to every local authority in New Zealand because the conditions that prompted its generation are present to some degree for all councils, as is the need to do things “smarter”.

Approach to Significance Assessment

The Protected Natural Areas Programme (PNAP) has often formed the basis of significance assessment, but this approach was not used in the West Coast Project for two reasons. First, the PNAP approach has usually involved extensive and often intensive field-based surveys, which are time-consuming and expensive. Second, the PNAP is based on the objectives of the Reserves Act 1977 rather than the Resource Management Act 1991 and therefore focuses on evaluating areas that could be added to the public conservation land. The PNAP approach is not appropriate for significance assessment under the RMA, as adding areas to the public conservation land is only one of a range of management options that can be used to provide for the protection of SNAs.

Instead, the Norton/Roper-Lindsay significance assessment criteria developed for the Ministry for the Environment (Norton & Roper-Lindsay 1999) was used. This system focuses on three primary criteria – representativeness, rarity/distinctiveness and ecological context – and a secondary criterion of sustainability. Application of these criteria involves a good ecological knowledge of the study area together with the use of remote sensing and information technology information. This approach enables a quick, accurate and cost-effective way to identify key possible SNAs without extensive field surveys, and provides for a first order regional survey that sieves out sites that require further investigation. The detailed field survey (and cost) is therefore focused on the possible SNAs that have been identified, rather than on the much larger (and more costly) task of identifying SNAs by assessing all possible sites.

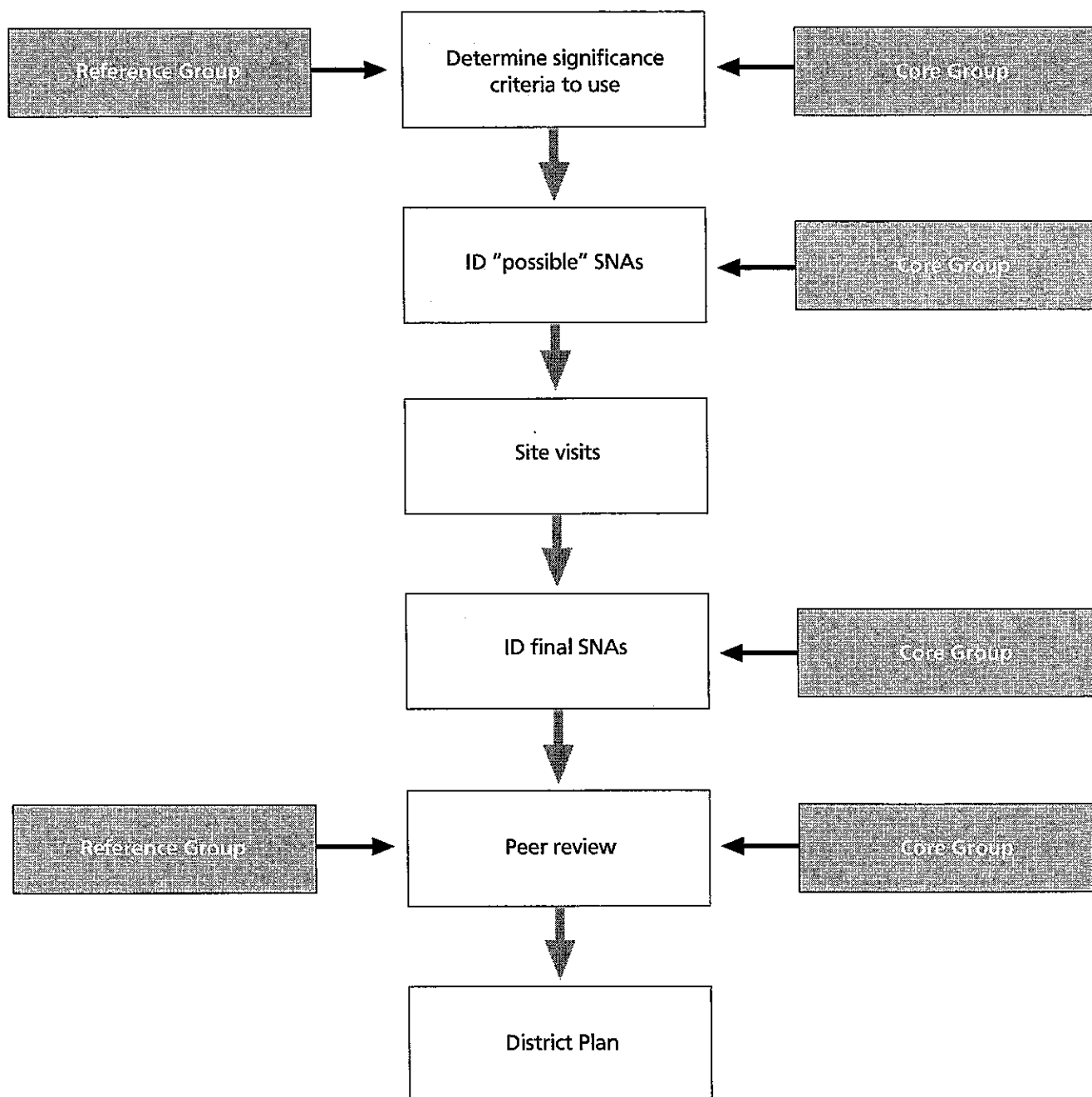
The approach taken to identifying significance usually involves three main steps:

1. Remote sensing and information technology will identify vegetation types that have been most impacted by human actions. The written results of this analysis are sent to all landowners. At the same time published and unpublished information on the distribution of threatened and uncommon species is researched to identify key sites for these species that are not within the public conservation land. From all the information gained, an initial list of possible SNAs within the study area is produced.
2. A field check will confirm that the possible SNAs exist (eg, they haven't been cleared or drained) and that they comprise the vegetation types indicated by the GIS analysis. Sites are surveyed from public roads, vantage points, and from the air. The criteria of ecological context and sustainability are also assessed at this stage. A formal list of possible SNAs is produced from these field check findings.

3. The "possible SNA" list is then used as the basis for detailed consultation with landowners and comprehensive site assessments of all identified possible SNAs. Consultation involves visits from council staff and councillors to landowners, while ecologists do the site assessments. Following consultation and detailed site visits, a formal SNA list for use in district planning, including reports on individual SNAs, is provided to the council.

The following sections describe the key components of the West Coast exercise, focusing on the significance assessment criteria, the scale of assessment, use of remote sensing and information technology to assess representativeness, identification of possible SNAs, and detailed field assessments.

Assessing significant natural areas



Criteria for Assessing Significance

Evaluation criteria are used to assess the ecological significance of a site. These criteria cannot in themselves identify which sites should or should not be protected. Instead they provide an objective assessment of the ecological values of the site, to use as a basis for subsequent decision-making about management and protection.

Criteria for assessing the ecological values of a site must have high information content (ie, provide enough information to readily separate significant and non-significant sites), be objective, be directly relevant to sustaining indigenous biodiversity within the context of New Zealand today, and be readily understood by non-ecologists. In terms of the RMA, evaluation criteria must provide information that enables councils to provide for the protection of sites of significant indigenous vegetation and significant habitats of indigenous fauna.

A variety of criteria used for ecological assessment are reviewed in detail by O'Connor et al (1990) and Norton & Roper-Lindsay (1999). The latter suggest four criteria as most appropriate for meeting the objectives of section 6(c) of the RMA: representativeness, rarity/distinctiveness, ecological context and sustainability. These criteria, which the authors suggest should provide sufficient information for assessment of the ecological values of all terrestrial and freshwater sites in New Zealand, are similar to those used by the Nature Heritage Fund in assessing applications for protection funding for areas of private land (Harding 1994).

Representativeness

A central focus of most conservation evaluation programmes is protection of representatives of the full range of biological diversity present in an area (eg, ecological district, local authority, or New Zealand). The assessment of representativeness involves comparing elements of natural diversity in the present landscape with those that existed at some time in the past, to help identify the elements most impacted by human activities and therefore ranked most highly for this criterion (ie, the most under-represented elements).

Two steps are involved in assessing representativeness.

- Development of a spatial framework within which to assess representativeness (eg, based on council boundaries or ecological districts).
- Ecological surveys to assess the past and current extent of those ecosystems that occurred in the chosen area. Assessing past extents estimates how representative current patterns are of past patterns, and can be based on broad landscape and bioclimatic units (eg, environmental domains), and knowledge from historical and palaeoecological information⁷. An assessment of the current extent of indigenous habitat within each environmental domain can then be used as a basis for assessing representativeness (eg, from satellite imagery, aerial photography, and ecological survey).

Once past and current extents have been determined it is possible to assess the differences and see how representative of the past the existing ecosystems are. The more significant areas are those that contain ecosystems with the greater decreases in extent.⁸

7 Some previous SNA assessments have used a date such as 1840 as a benchmark to compare current vegetation extent against. However, we used environmental domains as these provide a map of potential vegetation (based on environmental factors) and do not involve any subjective assessment of historical vegetation extent.

8 There are no objective rules for deciding what level of decrease identifies a particular ecosystem, habitat etc as significant. A value of 10% has been widely used (eg, Molloy, 1980) while Colin Meurk (Landcare Research, Lincoln) has suggested 20% as a value below which no further loss should occur, and this may be a useful level to work with in the interim. However, the percentage may vary for different ecosystems/habitats and be different in different areas.

GOOD PRACTICE RECOMMENDATIONS

- Representativeness is the key criteria in a section 6(c) exercise, because the protection of representatives of the full range of biological diversity present in an area is a key principle of biodiversity conservation.
- Representativeness assessment involves establishing a spatial framework within which an assessment will occur, and then assessing the past and current extents of ecosystem types.
- The use of environmental domains provides a straightforward and relatively cheap method for estimating the original extent of ecosystems.
- 10-20% has been suggested as a trigger level for determining where no further loss of ecosystem should occur (and therefore what is significant) but local conditions should also be taken into account.

Rarity/distinctiveness

Rarity/distinctiveness refers to the presence of unusual species or groups of species within a site.

Rarity refers to the presence of particular species or combinations of species that are uncommon at a particular spatial scale. In general, rare species are those having low abundances and/or small ranges. However, species with very limited ranges can be very abundant within their range, while some widespread species (large ranges) can have very low abundances locally.

Distinctiveness refers to unusual species or communities at a site (eg, the presence of a nationally common species at a distributional limit) or to the presence of species that are otherwise uncommon within an area (eg, the presence of tui within a largely agricultural landscape). Distinctive species may or may not be rare nationally, and they can be common nationally and rare locally (eg, nikau on Banks Peninsula).

Rarity is assessed using a classification system such as that developed by the International Union for the Conservation of Nature (IUCN 2000). This has been modified for the New Zealand situation (de Lange & Norton 1998) and applied to New Zealand plants (de Lange et al. 1999). The Department of Conservation has further refined the de Lange and Norton system to provide the basis for a national threatened species classification for all taxonomic groups present in New Zealand (Molloy et al. 2001) and will be applying this during 2001/02. This new system will provide a solid basis for assessing rarity in terms of RMA section 6(c).

The assessment of distinctiveness is less easy than for rarity and must be based on a good understanding of species and habitat distributions. Factors to consider include:

- (i) the presence of a species or habitat at a national distributional limit (eg, a northern or southern limit);
- (ii) the presence of a species or habitat that only occurs in that area (eg, an endemic species); and
- (iii) the presence of species or habitat that although common elsewhere is particularly uncommon in the ecological district.

GOOD PRACTICE RECOMMENDATIONS

- Rarity and distinctiveness can be defined at different spatial scales.
- Key habitats for native fauna species may include non-native species.
- Use the national threatened species classification system that has been developed by DOC and which is being applied in 2001/02.
- Distinctiveness assessment must be based on a good understanding of species and habitat distributions.

Ecological context

An area of ecosystem or habitat (eg, a patch of bush, a wetland, a river) does not occur in isolation, but is part of a larger landscape with which it interacts or connects in a variety of ways. These connections are very important in the functioning of ecosystems and habitats; they may be simple physical connections, such as a stream flowing into a wetland, or more complex and relate to transfers between parts of the landscape (such as the transfer of genetic information through pollen and seed movement). Individual remnant patches do not occur in isolation, and are strongly affected by the surrounding environment while many of the species in these patches also make use of the surrounding environment. This is especially so in New Zealand where many forest birds are strongly seasonally migratory and require a range of patches to meet their changing seasonal food requirements. Even non-migratory birds such as kiwi will move between patches in search of food and other resources.

Ecological context is likely to be most important for animals that are able to move between patches and make use of corridors. However, some aspects of ecological context such as buffers are also very relevant to plants as they can assist in sustaining particular botanical values. Ecological context is important in assessing waterways, which are linear systems, and which depend on their wider catchments for many characteristics.

The assessment of ecological context is more difficult than for representativeness or rarity/distinctiveness, since there is no clear-cut number, area or quality that can be set as a threshold for significance. The assessment must be made for each area considering ecological patterns within and around that area, and the ecological requirements of the individual species that are most likely to be affected by ecological context. In assessing ecological context for a site three main considerations are required relating to the actual or potential role the site performs in:

- enhancing connectivity between patches;
- buffering, or otherwise influencing a specific site; and
- providing seasonal habitat for particular indigenous species.

Sites meeting any of these considerations do not need to be dominated by indigenous species. Exotic species can and do perform similar roles. The key factor in using ecological context as an evaluation criterion is the actual or potential role the site performs for particular indigenous species.

GOOD PRACTICE RECOMMENDATIONS

- Ecological context is about connections or interactions between ecosystems or habitats.
- Assessment of ecological context involves an individual assessment of specific sites (unlike the representativeness and rarity/distinctiveness assessment that can be undertaken on a district-wide basis).
- Ecological context assessment involves the consideration of the role a particular site plays for indigenous species in the wider landscape.

Sustainability

Sustainability is a secondary qualifier for the above three criteria. Sustainability relates to the likely future condition of a particular place, including its ability to retain the ecological values that have been identified (eg, the presence of rare species) and/or its potential to better provide for particular values in the future (eg, the potential of a weed-infested forest remnant to provide future habitat for key threatened species).

If an area is identified as significant because it is underrepresented in the ecological district, because it contains rare or distinctive species, or because of its ecological context, then under the sustainability qualifier it also needs to have the potential to continue to be significant in the future (ie, the site is able to sustain the rare species present). Sustainability, then, is not just about what is happening to a site at present, but includes what could happen to a managed site. For example, a small forest remnant that is considered significant because it contains rare species may not be considered viable under current management (eg, grazing), but clearly has the potential to become so if the management were to change. This means that in "providing for the protection" of these sites the council will need to decide on priorities for management and their ability to create a situation where the site would become viable. Use of the sustainability test provides guidance on values under threat, and management options.

Assessment of sustainability requires a good understanding of the processes that are important in sustaining the ecological values of an area (eg, disturbance regimes, nutrient and energy cycling, pollination and dispersal mutualisms). The sustainability of a natural area as habitat for indigenous species is not necessarily dependent on the exclusion of productive uses (eg, agriculture); sustainability may be more dependent on maintaining the current management regime than excluding such management (eg, grazing of short tussock grassland). Factors that should be considered in assessing sustainability include:

- type of ecosystems, habitats, species present and their ecological requirements
- presence of disturbance including plant and animal pests, management activities (eg, stock grazing, extent of fence, water takes or discharges)
- size and shape of area
- isolation
- conservation management needed to achieve self-sustainability.

GOOD PRACTICE RECOMMENDATIONS

- Sustainability is a “qualifier” for the other three recommended criteria and only comes into consideration if one or more of the other criteria have been triggered.
- Sustainable sites need to have the potential to continue to be significant in the future.
- An assessment of sustainability needs a sound knowledge of ecological processes and the influences that current and likely potential future management actions on an area will be.

Scale of Reference for Significant Assessment

Significance needs to be assessed with reference to a particular spatial scale. For example, a site may be significant at a local scale but not nationally; at the outset of any significance assessment it is therefore important to decide on the appropriate assessment scale. Ideally significance should be assessed within the area administered by the council. The West Coast SNA Project would ideally have considered significance for the whole West Coast, or at least for each of the councils (Buller, Grey and Westland Districts). The former, however, is too large an area to be manageable both in terms of GIS analysis and field work. The council areas are smaller, but they are still large, with boundaries not always matching underlying environmental patterns. For this Project, ecological districts were used as the reference scale.

Ecological districts are areas where topographic, climatic, soil and biological features, and the broad cultural patterns, produce a characteristic landscape and range of biological communities that are internally consistent but different from adjacent districts (McEwen 1987). While the boundaries of ecological districts provide a better match with underlying environmental patterns than council boundaries, there are other issues; for example, similar vegetation types can be present on opposite sides of a river, yet lie in different ecological districts. It is important to remain aware of ecological patterns in adjacent districts.

The two systems – ecological districts and environmental domains – in conservation evaluation have incorrectly been positioned as alternatives. However, they have different functions and are complementary systems. Ecological districts provide an ecologically-based spatial framework for New Zealand, while environmental domains provide a scale-independent classification of areas with similar environmental attributes. In the context of RMA section 6(c) assessments, ecological districts provide a scale of reference against which to assess representativeness, while environmental domains provide a map of the potential vegetation of the district against which to compare the current vegetation cover in assessing representativeness. They can therefore be used together.

Assessment of Representativeness

Traditional approaches to assessing representativeness (to identify under-represented ecosystem types) have involved detailed field surveys and analyses of ecological patterns on and off the public conservation land. However, use of environmental domains and satellite-based land cover information is a much quicker way of gaining similar information. Environmental domains have been developed by Landcare Research to classify areas of New Zealand with similar ecosystem character. Environmental domains are based on information on climate (eg, radiation, temperature and rainfall deficit) and substrate (slope, drainage and parent material) and have been developed at a 100 m grid resolution (ie, at a 1 ha scale) for New Zealand. A classification analysis uses GIS technology that groups together 1 ha units with similar environments. The number of domains obtained from the classification depends on the scale of resolution that is required, but can range from 20 to >300 groups for New Zealand. The environmental variables used to define the domains have been chosen

because of their known functional links with major plant physiological processes. Because of this the environmental domains provide a map of potential vegetation types for an area irrespective of current land use (eg, environmental domains can be determined for urban areas despite the total replacement of the native vegetation cover).

Environmental domains do not equate directly with vegetation types and there is no regional or national system that allows this to be done. However, it is important to assign vegetation type names to environmental domains to make the results readily understandable by landowners and others. In our trial study areas names applied to domains were based on knowledge of the vegetation of the individual ecological districts. Published vegetation surveys (eg, NZ Forest Service vegetation types, Scenic Reserve survey reports, other ecological studies) and local knowledge were also utilised. Names used reflected the dominant canopy species and were kept as simple as possible.

The West Coast SNA Project used the environmental domains analyses to provide a map of potential vegetation cover and then overlaid this in a GIS with the Land Cover Database (LCDB) developed by the Ministry of Agriculture and Forestry. The LCDB is based on high-resolution satellite images of New Zealand taken over the 1996-97 summer. These images have been classified into 17 land cover types that depict the current land cover (eg, native forest, plantation forest, and pasture) and the classification has been field checked. By using the LCDB information, the environmental domains can be analysed to determine how much of each domain (ie, potential vegetation type) still retains native vegetation (eg, native forest as opposed to pasture). The analysis is used to identify which environmental domains/vegetation types have been most impacted by human activities. Information on land tenure can then be used to determine how much of the remaining area of each environmental domain that carries native vegetation occurs on different land tenures (eg, public conservation land versus private land) to show what is already protected through conservation legislation.

Based on these two sets of analyses it is then possible to determine (1) which environmental domains/vegetation types have been most impacted by human actions and (2) which domains are least protected in the public conservation land. Using the maps generated from the GIS analyses, areas under private ownership that retain indigenous vegetation within these domains can be identified. It is these areas that are considered underrepresented in the public conservation land and therefore identified as possibly significant in terms of representativeness. The GIS maps of the sites containing underrepresented vegetation types can be used as a basis for subsequent field checking. The advantage of this approach is that most analyses can utilise remote sensing and information technology without the cost of expensive field surveys. Field surveys are used only to verify the results of the analyses.

Both the environmental domains and LCDB are currently (2001) being updated, with a full environmental domains framework for New Zealand expected to be available in mid 2002. A revised analysis of the LCDB, including a breakdown of different forest types, is expected to be available by the end of 2002.

GOOD PRACTICE RECOMMENDATIONS

- Representativeness can be assessed using a GIS by:
 - overlaying environmental domains and LCDB in a GIS
 - adding the land tenure layer
 - identifying:
 - i. what vegetation types have been most impacted by human actions
 - ii. which vegetation types are least protected in the public conservation land.

GIS INFORMATION REQUESTED FROM WEST COAST COUNCILS TO ASSESS REPRESENTATIVENESS

The following notes provide a simple explanation of the GIS analyses required for the three trial ecological districts (Foulwind, Brunner and Waiho) in the West Coast SNA Project. These notes are divided into two sections. The first details the GIS map layers that are required for the analysis and the second the actual analyses required.

GIS layers

The analyses required four map layers that could be superimposed and used as a basis for analysis. The layers were:

1. Land tenure (DOC, other Crown, private). For Brunner, we also needed to distinguish lands managed by Timberlands West Coast Ltd (TWC) as a separate category from other Crown land.
2. MAF Land Cover Database.
3. Landcare Research environmental domains.
4. Ecological district boundaries.

Analyses required

The GIS analyses were undertaken to assess how well-represented different environmental domains were within the public conservation land and hence what remnants remained in private ownership that could be considered significant. Environmental domains were used as a proxy for potential vegetation type as the latter are not easily estimated. The environmental domains are based on climate, soil and landform attributes that directly influence vegetation pattern and hence provide a good approximation for vegetation types.

Three analyses were undertaken.

1. **Quantification of total area of unmodified habitat remaining:** Using the LCDB and tenure GIS layers, quantify the total area of unmodified habitat remaining for the whole ecological district, and for DOC, other Crown and private land groups separately (also TWC for Brunner). The following LCDB cover classes are considered as unmodified:

- indigenous forest
- inland wetlands
- coastal wetlands
- coastal sands
- predominantly tussock.

The shrubland cover class was treated as modified as it includes exotic shrubland, although there are large areas of regenerating shrubland (following previous disturbance) that have conservation values (eg, pakihi areas).

2. **Quantification of remaining unmodified habitat for each environmental domain:** This is the same analysis as in (1), but this time unmodified habitat was sorted by environmental domain. A table showing the total area and remaining unmodified area for each environmental domain in the whole ecological district, and then split between DOC, other Crown and private lands (also TWC for Brunner) was the output. The same LCDB classes as in (1) were used to define unmodified.

3. **Quantification of remaining unmodified habitat by altitude (Brunner ED only):** The analyses in (1) and (2) were repeated, but this time split into two classes (lands below 500 m and lands above 500 m).

The data gained was used to determine the percentages of unmodified habitat remaining for each environmental domain. This information formed the basis for assessing how well-represented each environmental domain was within the ecological district.

Production of field maps: In addition to the GIS analyses, council staff also produced maps of each ecological district (1:50,000 scale) showing the distribution of unmodified habitat on all land tenures for each environmental domain (with the different land tenures marked). These maps were used for subsequent field work.

LANDOWNER INFORMATION SHEET FOR THE BRUNNER ECOLOGICAL DISTRICT

This report is part of the West Coast Significant Natural Areas (SNA) Project. It provides information on the natural character of the Brunner Ecological District (ED) and explains why some areas of remnant indigenous vegetation within the district might be considered as significant in terms of section 6(c) of the Resource Management Act.

Three criteria have been chosen for assessing "significance" on the West Coast. The first is **representativeness**, which is explained more fully below. Sites that contain nationally threatened species or species that are particularly unusual to the area might also be considered significant (the **rarity/distinctiveness** criterion). Sites that, because of their location, enhance biodiversity values more generally (eg, connect an otherwise isolated forest remnant to a more extensive area of forest) could fall within the third criterion – **ecological context**.

The natural character of the district

The Brunner ED is characterised by the large dome-like granite mountains of the Hohonu Range, Te Kinga and Granite Hill; the fertile alluvial valleys extending from Inchbonnie to near Mitchells, from Lake Poerua and the Crooked River to Lake Brunner, and at Taramakau Settlement; the extensive rolling country extending from Bell Hill around the northern side of Lake Brunner to the Greenstone (Big Hohonu) River; and the lakes (Brunner, Lady, Kangaroo and Poerua). While the Brunner ED extends to the alpine zone, most of the area is lowland with mild temperatures and moderate to heavy rainfalls (3000-4500 mm). Soils are typically infertile (except in the alluvial valleys) and are often poorly drained, especially on level sites.

Before human settlement, the Brunner ED would have been almost completely forested, except the subalpine and alpine shrublands and tussock grasslands on top of the granite mountains. Along the fertile alluvial valleys and around the lakes and rivers wetlands would have occurred. Now, the forests of the district are characterised by an almost complete absence of beech. Instead, tall podocarp trees – rimu, miro, kahikatea and matai – dominate most of the lower altitude forests; southern rata is dominant at higher altitudes; and kamahi occurs almost everywhere.

As is the case everywhere in New Zealand, human settlement has impacted on the indigenous vegetation of the Brunner ED, primarily by reducing its extent. The vegetation of the mountains is still largely intact but much of the vegetation of the lowlands has been converted to pasture for farming and to exotic forest. Because the impacts of humans have not been uniform across the district, some vegetation types have been more affected than others. The next section explains the patterns of vegetation loss and the implications they have for this SNA exercise.

Assessment of representativeness

Representativeness refers to how well-represented different vegetation types are today in comparison to their historical extent. We have used three pieces of information for assessing representativeness – a map of the historical vegetation pattern, the current land cover (indigenous forest, plantation, pasture, wetland, etc) and land tenure. We have then used a geographical information system analysis undertaken by Grey District Council staff to assess how much of each historical vegetation type remains today and how much of these remaining areas are in the public conservation land, part of the Timberlands estate or in private ownership. The following table provides a summary of this analysis.

Vegetation type	Historical Area (ha)	Percent remaining	Remaining area by tenure (%)		
			DOC	TWC	Private
Uplands (> 300 m elevation)					
Forest, shrubland and grassland	16,556	99.3	74.7	20.3	5.0
Lowlands (< 300 m elevation)					
Mixed podocarp-kamahi forest	9,303	82.9	50.2	25.8	24.0
Rimu-miro forest	24,562	42.0	38.3	32.9	28.8
Kahikatea forest and wetlands	8,283	12.1	26.1	0.3	73.6
Brunner Ecological District	58,704	60.3	57.5	24.5	18.0

TWC: Timberlands West Coast Ltd.

Most of the district (60%) retains a predominantly indigenous vegetation cover, but that this is not evenly distributed between the vegetation types. Almost all the upland forest, shrubland and grasslands remain and most of these are part of the public conservation land except the forests of Granite and Bell Hills which are managed by Timberlands. In the lowlands, the most extensive vegetation type is the rimu-miro forest of the poorly drained gently sloping sites around Bell Hill and to the north and west of Lake Brunner, of which 42% still remains. While extensively cleared in the Bell Hill area, large areas of rimu-miro forest remain north and west of Lake Brunner, including areas in the public conservation land and under Timberlands management. On steeper slopes mixed podocarp forests of rimu, miro, kahikatea and matai, with kamahi the dominant angiosperm tree, occur with most of these still intact and about half in the public conservation land.

The remaining vegetation type, the kahikatea forest and associated wetlands of the fertile alluvial valley bottoms, shows a very different pattern, with only 12% remaining and the majority in private ownership. Conversion of forest and wetland to dairy farming has been the main cause of loss and it is this vegetation type that is the least well-represented both in terms of its remaining extent and its protection within the public conservation land.

The process from here

We have identified alluvial valley floor kahikatea forest and associated wetlands as the primary focus for identifying SNAs within the Brunner ED in terms of the representativeness criterion. Areas that might meet the rarity and ecological context criteria are currently being investigated. Based on this ecological evaluation, a series of sites will be identified as possible SNAs in the Brunner ED. All owners/occupiers of land where a possible SNA is identified will be contacted by Grey District Council staff, who will then meet with them to discuss the reasons why a particular site has been identified as a possible SNA and to obtain permission for a site visit by the Project ecologist. Council staff will also discuss with landowners the diverse range of options that might be available to protect the site's values.

If you have any queries about this report or the process by which it was derived please contact ... (name and phone number of council staff and local councillor).

Identification of Possible SNAs

The first two steps of the approach taken to identify possible SNAs involved a desk-based process and a field-based process. Initially, the GIS maps and aerial photos were used to identify remnants within any of the under-represented environmental domains. At the same time, sites that might be important for ecological context reasons were identified, based on aerial photo interpretation of current vegetation pattern (eg, areas that might enhance connectivity or that represent major gaps within otherwise continuous public conservation land). Information on the presence of rare or distinctive species was obtained from published information and from unpublished databases such as those held by the Department of Conservation. Any sites containing such species were noted.

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EXAMPLES OF POSSIBLE SNAS BASED ON RARITY AND ECOLOGICAL CONTEXT CRITERIA

Rarity: Rarity was triggered as a criterion for SNA identification at several sites, often because of the presence of nationally threatened birds (eg, Australasian bittern – Endangered) or fish (eg, shortjawed kokapu – Vulnerable). A specific example is the small-leaved shrub *Meliccytus flexuosus* which is ranked nationally as "Declining" and is known from only two sites in south Westland. One site, comprising only one plant, is within Westland-Tai Poutini National Park but the other site, with more plants, is on private land. Because of this plant the site has been identified as a SNA and discussions are now under way with the landowner on the best ways to sustain the species at this site.

Ecological context: Ecological context was considered important in identifying several SNAs, especially where forest on private land provided connectivity between areas of more extensive forest within the public conservation land. A good example of the use of this criterion was at one site where a major area of private forest (c. 400 ha) was located between a lake margin scenic reserve and more extensive public conservation land. This area was identified as significant because if it were cleared it would present a substantial barrier to the movement of several forest birds utilising seasonal food supplies (eg, kowhai) along the lake edge.

The desk-based assessment was followed by a site visit which involved spending between one and two days driving around the ecological district. The primary focus of this visit was to confirm that sites identified as possible SNAs actually existed, and to confirm what the broad vegetation types were within these remnants (ie, that they matched with what the environmental domains analysis suggested). At the same time an assessment was made of other sites identified as important because of their ecological context. This field assessment did not involve any entry onto private land; instead sites were surveyed, often with binoculars, from roadsides and other public vantage points. An over-flight of each ecological district was also undertaken using a light aircraft as it was often not possible to see all sites from public access points on the ground. The over-flight was excellent for assessing ecological context as connections could readily be seen from the air. In addition, any further sites (not identified during the desk-based assessment) that might meet the significance criteria were identified.

Based on the desk- and field-based assessments a list of possible SNAs was developed. This list was provided to the council and included brief information on the vegetation type present and a brief assessment of the site against the four significance criteria.

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SUMMARY INFORMATION PROVIDED TO LANDOWNERS ON INDIVIDUAL POSSIBLE SNAS (a map was also included showing topographical features, and land tenure and SNA boundaries)

SNA 1 – Three-Mile Lagoon

Current vegetation: This is the largest coastal lagoon within the Waiho ED and includes the full range of saltmarsh and shrubland plant communities typical of coastal lagoons.

Representativeness: Similar vegetation is present in the much larger Okarito Lagoon to the north and Five-Mile Lagoon to the south.

Rarity/distinctiveness: Good populations of the mistletoes *Ileostylus micranthus* and *Korthalsella clavata*. Bittern and fernbird also present.

Landscape context: Critical site as it is nestled within Westland-Tai Poutini National Park and provides key seasonal resources for a variety of birds including kotuku, as well as being important for inanga.

Sustainability: Excellent – the site is well buffered by surrounding conservation land and the ocean.

Other comments: Status of land uncertain, probably LINZ. This area should be added to the national park because of its very high values. Note that parts of the lagoon are already in the park. The SNA is bounded by public conservation land and by the ocean.

GOOD PRACTICE RECOMMENDATIONS

- Make maximum use of information that is already available in developing the list of possible SNAs.
- Follow up with a comprehensive ground survey utilising public roads and other public vantage points.
- An over-flight of the study area at this stage is highly desirable as it is of considerable assistance in better defining possible SNAs.

Detailed Field Assessment

The list of possible SNAs was then used as the basis for landowner consultation and detailed field assessment. A map showing the extent of each SNA was sent, with the summary information on why the site had been identified as a possible SNA, to each landowner concerned. In some cases multiple landowners were involved and this information was sent to each landowner separately.

Good maps were essential for enabling landowners to identify the location of the SNA on their properties. The best maps included information on land tenure (property boundaries), LCDB types and major topographical features (roads, rivers and lakes) but without extraneous detail.

Suggested methodology

Prior to ecological assessment of each SNA, council staff should make contact with landowners to discuss the reasons for the exercise and the background to the identification of a SNA on a particular property. The most successful approach involves a senior council staff member (usually a planner or community relations manager) and a councillor visiting each landowner with a possible SNA and discussing the issues with them. This enables good dialogue between the council and landowners and facilitates the subsequent visit by the ecologist. The visit by the council staff member also enables discussion on the way that SNAs are being/are going to be handled with regard to the District Plan.

The project ecologist then visits each site. Visits typically involve an initial meeting with the landowner, which should include discussion on the reasons for the SNA being identified and the possible options for the area in the future, followed by a site visit. Site visits involve making detailed notes on the vegetation types present, their condition and extent, and the presence of other features that might contribute towards significance. Particular attention needs to be given to SNA boundaries to ensure that they are properly mapped. It may not be possible to assess rarity in detail (eg, fish or bat surveys may not be plausible), but any unusual features present should be noted.

The detailed field assessment is also a good opportunity to further assess if there are additional sites in the area that meet the significance criteria. Such sites may have been initially missed or regarded as not-significant until seen close-up on the ground (eg, because of the presence of a particular rare species).

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EXPERIENCES OF FIELD ASSESSMENT

In some cases the landowners accompanied us around the site, which enabled us to show them the different features of the SNA, but limited the time we spent on site. Sometimes we were able to visit the site on our own which provided more time for a thorough look around the area.

Consultation by council staff and councillors, together with the site visits by the ecologists, was time-consuming both in terms of the time spent with landowners and the time it took to set up meetings. The latter in particular caused considerable delays as meetings had to be arranged to fit around farmers' schedules, making it difficult to visit more than two or three landowners in a day. Time spent by the ecologist talking to landowners prior to going into the field ranged from five minutes to nearly three hours. Despite these difficulties, the time spent with landowners was invaluable as it helped develop landowner support and ownership for the exercise and provided useful information on the history of the site.

GOOD PRACTICE RECOMMENDATIONS

- Involvement of council planning staff, councillors and the ecologist with landowners ensures that landowners understand the whole process.
- Ecologists meetings with the landowners play a key role in education/information sharing about:
 - the wider context of the site and why it is significant when considered on a district basis
 - the particular values on a site and how current and future management is and could help or hinder these values.

Final SNA List

Notes from the visit together with a summary of the discussions with the landowner should be used as the basis for writing a formal report on each SNA. Every effort needs to be made to keep these reports brief and they should include a revised assessment of significance, notes on any changes to SNA boundaries and a final recommendation to council. This report then constitutes the formal identification of SNAs within the ecological district.

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EXAMPLE OF A SITE REPORT – SNA x

We initially visited this site with Jones (the landowner) on 2 December 2000 and then had a further inspection on 10 December 2000. On the first visit we spent some time talking with Jones about the SNA exercise and the possible SNA that had been identified on his property. We then drove to a vantage point overlooking the SNA and Jones outlined some of his goals for the area. On the second visit a more detailed examination of the vegetation was undertaken and involved traversing through most of the area.

The vegetation is cutover regenerating rimu and kahikatea forest, with kahikatea predominant closet to the lake. There are remnant old-growth trees of kahikatea, rimu and Halls totara, with miro, kamahi, Westland quintinia, broadleaf, celary pine, lancewood and cabbage tree scattered throughout. The least disturbed area of tall forest is at the northern end (A) where old-growth kahikatea, rimu and silver pine are common. The fern kiokio, bush lily and sedges dominate the forest floor. Swampy areas are common throughout the SNA with flax and *Sphagnum* dominant. Adjacent to the lake *Coprosma* shrubs are common and carry a large amount of the dwarf mistletoe *Korthalsella clavata*. There has been some *Sphagnum* moss harvesting in the past and the SNA is fenced.

An adjacent area of cutover mixed podocarp-kamahahi hill forest is contiguous with the SNA to the west (B) and complements the SNA by providing additional and a greater diversity of forest habitat. Jones sees this latter area as a potential site for some form of accommodation for visitors and has no intention of clearing the regenerating forest. This forest is also fenced.

The area identified as a possible SNA certainly meets all three primary criteria for significance and because of its size, fenced margin and location adjacent to the lake should have good long-term viability. The catchment of the lake is almost completely forested. The protection of this SNA is therefore an important buffer for the lake.

Jones was supportive of the identification of this area as a SNA. We briefly discussed the option of covenanting and this is something that could be considered further in the future. The key constraint that Jones has is to ensure that there is provision for the building of some form of accommodation on the block or adjacent to the block that is appropriate to its location.

Recommended changes to original boundaries

No changes necessary.

Summary assessment of area against evaluation criteria (key criteria triggering significance are underlined):

Representativeness: This is an under-represented vegetation type and includes the lake-forest sequence.

Rarity/distinctiveness: Bittern and fernbird are present, both of which prefer the wide swamp margin. Probably also supports mudfish.

Landscape context: This area connects with the hill forests to the north of the lake and enhances the overall values of the area as well as forming part of the lake margin, thus playing a role in the ecology of the lake itself.

Sustainability: Although cutover, the kahikatea forest has good regeneration potential and good long-term viability.

Recommendation: That this area be treated as a SNA.

As a result of site inspections it is likely that the area of some SNAs will be different to those first defined as possible SNAs. Our experience with the West Coast SNA Project suggests that the initial SNAs tend to be larger than those finally identified, as the initial definition of boundaries is usually generous to ensure that no areas have been missed out. However, field inspections quickly highlight areas where boundary changes are required. As a result of site visits, some areas might be discarded as SNAs after seeing they no longer contain the expected values (because they were more modified than initially thought or because they had been incorrectly mapped). Such changes are a normal part of the SNA exercise and should be expected. In some cases additional areas were identified as additions to existing SNAs or as new possible SNAs and these were evaluated following the process described here.

We also found some landowners were not willing to allow us on to their land. In some cases this did not matter as the SNA involved several landowners, and site visits to those parts under different ownership was sufficient to confirm the values the site had. However, in other cases lack of access meant that we have been unable to revise the initial assessment and in these cases the SNA remains as a possible SNA until a site visit takes place.

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SUMMARY RESULTS OF SNA IDENTIFICATION IN THE TRIAL AREAS

Ecological District	Number of possible SNAs	Field assessments			Final SNA status		
		number visited	entry refused*	no change	minor change	major change	deleted
Foulwind	10	7	4	5	1	1	0
Brunner	15	13	2	5	4	3	2
Waiho	10	9	2	5	3	1	1

*Includes cases where entry was refused to part of the SNA only

Conclusions

The approach that we have taken to significance assessment, using information technology to undertake an initial sieve of sites followed up with visits to identified possible SNAs, is an efficient and relatively fast method for meeting RMA section 6(c) requirements. The most time-consuming part of the exercise is arranging for and then meeting with landowners prior to visiting individual sites. However, this is also in many ways the most rewarding part of the exercise and one of the most critical for developing a good relationship between the council and the landowner. The initial assessment, using an experienced ecologist familiar with the area, is much quicker and more cost efficient than extensive field-based surveys. While it is possible that some sites may be missed through this approach, our West Coast experience suggests that this is not a major issue.

6. Providing for Protection

Most people involved in a section 6(c) exercise will want to know what happens when a site that is significant has been identified. It is clear that there is no one answer to this question but rather it is incumbent on the council to find answers that suit the circumstances of their particular district or region.

The definition of the word "protection" also needs to be considered. It has been interpreted loosely by the Courts as "keep safe from injury" rather than prevent or prohibit.⁹ Several Environment Court cases state that the section does not require protection "at all costs" or "above all else" but to achieve protection in terms of promoting sustainable management.¹⁰

This section of the case study does not provide an extensive list of possible "mechanisms or tools or methods"¹¹ that councils could use. Rather it presents a framework for councils to work within when generating and considering the types of approaches to "providing for protection" that may be appropriate for their district or region. There is also some general discussion of general advantages and disadvantages of some of the possible approaches.

Choosing the Right Mechanism¹²

It is important to remember that the purpose of a mechanism is to encourage (or, as a last resort, force) *people to behave* in a particular way. To be effective a mechanism must influence *people's decisions*.

When deciding on mechanisms there is a need to consider:

1. the purpose of the mechanism, and
2. the local social & economic conditions under which they will have to operate.

Purpose of Mechanism

Effective protection of significant sites may require:

- exclusion of stock
- pest and weed control
- management of fire risk
- enhancement planting or introduction of species
- legal protection
- an integrated approach, combining
 - management of the site
 - riparian/wetland management (with Regional Council)
 - biodiversity conservation within the wider landscape.

The mechanisms selected need to be able to "protect" the significant ecological values on the site. The mechanisms need to have a strong ecological base and be defensible on ecological grounds. Advice from an ecologist on what is appropriate is useful. The mix of other considerations can then be used to refine the approach to the local conditions.

9 From papers by the Ministry for the Environment. Case cited is – *Environmental Defence Society Inc and Tai Tokerau District Maori Council v Mangonui County Council* (CA) [1989] 3 NZLR 257, (1989) NZTPA 197.

10 *ibid.* Cases to refer to include – *NZ Rail v Marlborough District Council* [1994] NZRMA 70, *Trio Holdings v Marlborough District Council* W 103A/96 and *South District Council v Southland Regional Council* C 29/97.

11 This publication uses the term "mechanism" as a collective term for the types of approaches councils can use to protect significant sites.

12 This section is primarily material presented to a West Coast SNA Project Tools Workshop by Chris Livesey, Tonkin & Taylor Ltd.

Social and Economic Conditions

There are different levels and different aspects of social and economic conditions to consider when deciding what are appropriate mechanisms for a particular district or region.

In order to understand these considerations it is essential to consult with the landowners and get feedback from them. The text box contains some of the feedback received from landowners on the West Coast.

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Feedback from landowners

Some of the questions raised by the landowners with a possible SNA on their property include:

- Who pays for fencing to protect an SNA?
- Can we protect the possible SNAs without changing the status of the land?
- Will Central Government "change the rules" at some stage in the future? (There was a high level of fear of being constrained or having controls imposed by Central Government.)
- Will establishing a SNA increase the possibility of TB on my farm? (The Animal Health Board's role needs to be explained in response to this issue.)
- Will establishing a SNA add value to my property? (This was a particular issue with landowners who had plans for tourism ventures.)
- How do we manage possible SNAs, and what activities can we undertake within the SNA?

Council staff also asked landowners for specific suggestions on how the values in the possible SNAs could be protected.

Some suggestions were:

- provision of a fencing fund
- assistance with pest control
- more information about protection and restoration
- environmental credits from SNAs to be used for activities elsewhere
- partnership approaches with councils to protect SNAs
- incentives from councils to protect SNAs.

Below is a series of points that need to be considered when evaluating whether a mechanism is suitable for the local social and economic conditions.

National considerations

- There is still national debate over how costs of conservation on private land should be shared and who should pay how much.
- The New Zealand Biodiversity Strategy sets out some national goals that local authorities need to consider.

Local considerations

- Benefits of conservation usually accrue more to the wider community than to landowner.
- Returns from agriculture go through cycles (prosperity/downturn).
- Time is money for farmers.
- Some conservation on private land may be very costly (direct costs, time and opportunities forgone) for the landowner.
- Some conservation on private land may not be costly for the landowner.
- Councils have competing demands on often limited resources to manage and meet statutory obligations in their district or region.

Threats/risks need to be considered, including:

- Which sites are under threat? From what?
- What is the level of risk in each case?
- How is this risk expected to change over time?
- What can be done to reduce the level of risk at a particular site?

Landowners

Private landowners include people who are:

- opposed
- uncommitted
- committed, but face constraints
- already acting.

Different mechanisms may be needed to address the different attitudes or levels of motivation of landowners within the district or region.

Costs/benefits to “landowner” may differ depending on whether:

- they are owner, long-term lessee, short-term lessee
- the land is economic farmland, potentially economic farmland, uneconomic for farming, has subdivision potential or has potential to produce income from recreation or eco-tourism.

Attitudes may vary according to:

- proportion of income earned from the land holding
- size of the land holding.

The consideration of the local social and economic conditions ensures that mechanisms are tailored to the particular local situation. This means that expectations can be set at an achievable level and the resource allocation can be prioritised. Lessons can be learnt from what others have done but they should only be applied if the conditions they are expected to operate under are the same.

GOOD PRACTICE RECOMMENDATIONS

- Talk to landowners and get information from them on what is appropriate for your district or region.
- Mechanisms first and foremost need to be able to “protect” the significant ecological values that have been identified on a site. The mechanisms chosen need to be strongly supported by ecological science not just cost or social and economic considerations.
- Paying regard to local social and economic considerations ensures that the mechanisms are tailored to the circumstances of where they are to be applied.

Categories of Mechanisms ¹³

There are a number of ways that planners have sought to organise categories of mechanisms to better understand the options or present them to groups involved in a section 6(c) exercise. It is useful to consider the types of mechanisms by what it is you want them to achieve.

Approach based on the purpose of the mechanism

This categorises the types of mechanisms according to what the mechanism will achieve. There will be a range of mechanisms in each category under this approach. This approach is useful in explaining approaches to landowners and is also useful to generate the "suite of mechanisms" approach. That is, you can think about a number of approaches under each category.

Mechanisms can be used to:

- provide understanding of the need to protect SNAs
- provide information about how to protect SNAs
- provide role models for others to copy
- provide encouragement and support
- help reduce time input required by landowner
- provide reward or recognition
- help meet cost of materials (fencing, planting) or legal costs
- help meet cost of ongoing management
- help meet loss of income or potential income
- help meet loss of value of the property
- require landowners to behave in a certain way.

Mechanisms can be grouped into several categories:

- encouragement by the provision of information, advice and learning opportunities
- recognition/support
- cost sharing
- income creation
- regulation.

¹³ This section is a combination of material presented to a West Coast SNA Project Tools Workshop by Chris Livesey, Tonkin & Taylor Ltd and material from papers by the Ministry for the Environment.

Examples

Table 1: Encouragement by provision of information, advice and learning opportunities

General advantages	General disadvantages
<ul style="list-style-type: none"> • Mostly inexpensive • Effective if people are positively motivated towards the protection of significant sites • Equitable • Self-enforcing • Enhances effectiveness of landowners' own actions 	<ul style="list-style-type: none"> • Can't be relied upon in isolation, especially if there is little support for the protection of significant sites • Requires a supportive and involved audience • Difficult to measure effectiveness • Some measures may not be cost effective
Bear in mind:	
<ul style="list-style-type: none"> • For these measures to achieve change, the landowners must be supportive and directly involved in the protection of significant sites • These mechanisms are useful where people have a self-interest in protecting areas (eg, to establish ecotourism ventures) • Must provide ongoing commitment of funds through the Annual Plan 	
Examples:	
<ul style="list-style-type: none"> • Information sheets, pamphlets, booklets on why, what and how • Participatory learning opportunities including seminars, workshops on what and how • Information about other organisations that can help, eg, New Zealand Landcare Trust, DOC • Field worker or advisor available to give advice to landowners 	

Table 2: Recognition and support

General advantages	General disadvantages
<ul style="list-style-type: none"> • Cost effective • Minimal equity concerns • Encourages positive landowner and community attitudes • Non-interventionist • High profile 	<ul style="list-style-type: none"> • Can't be relied upon in isolation, especially where there are strong financial or attitudinal disincentives for the protection of significant sites • Administration costs involved in monitoring • Can't control the levels and types of protection undertaken
Bear in mind:	
<ul style="list-style-type: none"> • These mechanisms are particularly appropriate in circumstances where people are willing to protect natural values and where the self interest of individuals in obtaining a financial concession for themselves is limited 	
Examples:	
<ul style="list-style-type: none"> • Awards, competitions, prizes and festivals • Support for Landcare Groups to manage sites • Covenants • Rates relief 	<ul style="list-style-type: none"> • Minor grants • Management agreements/plans • Waiver of administration costs

Table 3: Cost sharing

General advantages	General disadvantages
<ul style="list-style-type: none"> Partnerships between the landowner and council established Leaves decision-making to the landowner High community acceptability 	<ul style="list-style-type: none"> Ongoing cost to council Similar administration costs to regulation Compliance monitoring
Bear in mind:	
<ul style="list-style-type: none"> Cost-sharing mechanisms are long term and require the ongoing commitment of funds through the Annual Plan 	
Examples:	
<ul style="list-style-type: none"> Financial grants Contestable funds Administrative support Funding of field worker Provision of materials (fencing, pest and weed control equipment/materials, plants) Paying or subsidising legal costs of protection (covenants, encumbrances, survey) Provision of free or subsidised pest/weed control services 	

Table 4: Income creation

General advantages	General disadvantages
<ul style="list-style-type: none"> Provide significant financial incentive to protect sites May be tailored to suit site-specific problems in an administratively efficient way Dependable Minimum cost to individuals Guardians are on-site 	<ul style="list-style-type: none"> Can be complex to set up Compliance monitoring costs Tradable rights are limited by ecosystem limits (ecosystems are not replaceable and if pushed to their limits may collapse) High up-front costs for land purchase Limited availability of land able to be swapped
Bear in mind:	
<ul style="list-style-type: none"> Subdivision and development incentives will only work where there is growth and subdivision demand 	
Examples:	
<ul style="list-style-type: none"> Tradable or non-tradable development rights such as transferable title rights or bush lot subdivision Purchase of land by councils, Department of Conservation or other bodies such as the Nature Heritage Fund Land swaps by councils or Department of Conservation 	

Table 5: Require certain behaviours – regulation

General advantages	General disadvantages
<ul style="list-style-type: none"> • Creates a basis for setting up “income creation” mechanisms • Provides certainty and dependability for all parties • Can act as “back stop” rules to ensure a minimum level of significant site protection and block actions of “cowboys” 	<ul style="list-style-type: none"> • Creates ill will unless consultation is thorough and science is justifiable • High administrative and compliance cost monitoring • Economic impact on landowners • To be effective needs to be enforceable • Information needs to be precise – therefore costly and requires technology • Landowners feel singled out (eg, site-specific rules)
Bear in mind:	
<ul style="list-style-type: none"> • Rules must relate to significant indigenous vegetation as well as significant habitats of indigenous fauna. There are fewer examples of rules to protect habitats. • Rules may be necessary to provide a “backstop” if there are significant risks; however a higher degree of protection is achieved through the use of regulation as just one of the mix of mechanisms adopted. 	
Examples:	
<ul style="list-style-type: none"> • Site-specific rules in plans • General rules in plans re subdivision • Financial contributions • Ecological development impact fee 	<ul style="list-style-type: none"> • General rules in plans re vegetation clearance • Resource consents • Reserve contributions • Zones for ecological protection

Suites of mechanisms

It is well recognised that a mix or suite of mechanisms is the most effective way to provide protection for significant sites. It may be helpful to build and refine this suite through the development of an Action Plan. The Action Plan does not have to be part of the District Plan; it can sit outside but include some RMA regulatory elements.

The development of the Action Plan will also be a core part of meeting the requirements of section 32 of the Act. The consideration of the various options for protection, their effectiveness and efficiency and advantages and disadvantages would form the basis of a section 32 evaluation if any of the mechanisms ended up in a District or Regional Plan.

The Action Plan will provide a council-wide overview of all the mechanisms being used and enables everyone to consider the suite as a whole.

GOOD PRACTICE RECOMMENDATIONS

- When thinking about mechanisms you need to be clear about:
 - What you are trying to achieve
 - Who you are trying to influence
 - What you want them to do
 - What their wants and needs are
 - How you can meet their needs and wants

**Where to Find
Further Information**

A good reference for what other councils are doing is *Ministry for the Environment Stocktake of Local Government and Community Goals, Processes and Measures for Biodiversity Management: Summary Report* prepared by Tonkin and Taylor Ltd, September 1999.

There are a number of other publications that have been prepared by councils as part of their process of assessing what approaches they are going to use, for example *Mechanisms for Protecting Significant Natural Areas* prepared by Michaela Cosijn, Rodney District Council, May 1999.

Contacts for voluntary conservation programmes can be obtained from the *Sustainable Management Directory*, available from the Ministry for the Environment or through the New Zealand Landcare Trust website – www.landcare.org.nz

The New Zealand Landcare Trust can also provide information on practical developments by various landcare groups throughout NZ in managing SNAs. Contact details for the Trust are on their website.

7. Monitoring and Review

The methodology set out in this document will produce a list of significant sites for a region or district that will meet the requirements of section 6(c) RMA at the time of its production but the list should always be considered to be active and the exercise should be monitored and reviewed.

Ecological processes are never static. Ecological information will be updated, more research will be commissioned by councils to fill gaps, and more research from other organisations will become available. Councils need to incorporate this increased knowledge into their resource management processes.

Providing for protection is not a finite piece of work either – approaches, resources, community attitudes and expectation, and government policies can all change and have an influence on what is possible and appropriate for a particular location.

Each council will need to define how they will monitor the results of the exercise and when reviews will be undertaken based on their particular circumstances both from an ecological and community perspective.

8. References

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The information for this plot has been taken from West Coast Regional Council records. Every reasonable effort has been made to maintain current and accurate information on this site. The information contained within the GIS has been assembled in good faith, but its accuracy and completeness cannot be guaranteed.

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