Auckland Regional Landscape Assessment
for
Auckland Regional Council

Comprising:

Stage 1
Identification of a Representative Sample of Regional Landscapes, Photography of All Landscape Types, Identification of Natural Character Indicators

Stage 2
Public Perceptions of Outstanding Natural Landscapes in the Auckland Region

Stage 3
Delineation of the Outstanding Natural Landscapes of the Region

John R Fairweather
AERU, Lincoln University

and

Simon R Swaffield
Environment Society and Design Division,
Lincoln University

In association with Boffa Miskell and Stephen Brown Landscape Architects

Compiled July 2006

Auckland Regional Landscape Assessment Study
Stage 1 Report

Project undertaken by: **Stephen Brown Landscape Architecture**
(Stephen Brown)

Lincoln University
Environmental Management and Design Division
(Simon Swaffield and John Fairweather)

Boffa Miskell
(John Goodwin and Rachel de Lambert)

1.0 Introduction

Auckland Regional Council (ARC) has for some time been investigating the best methodological approach in relation to reviewing and updating the original Regional Landscape Assessment completed in 1984 (An Assessment of the Auckland Region's Landscape, Auckland Regional Authority, Planning Department, 1984). This investigatory phase culminated in a report prepared for the ARC by Stephen Brown (Stephen Brown Landscape Architecture), one of the original authors of the 1984 study, entitled 'Auckland Regional Landscape Assessment, Assessment Methodology Report', March 2002.

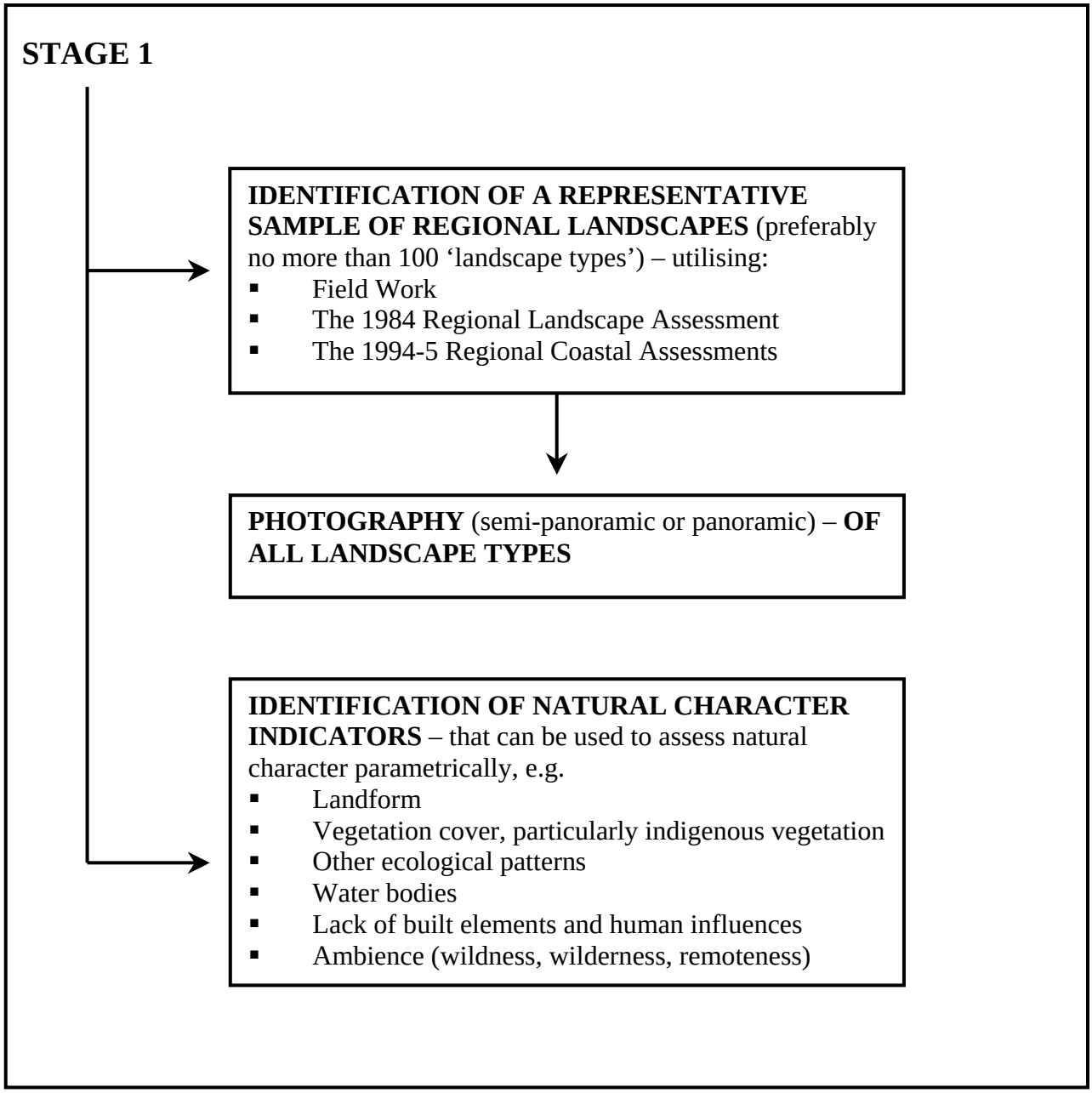
This document has formed the basis of a brief to consultants extended by the ARC in March of this year (2002). A consortium of established landscape practitioners in the field of landscape assessment (Stephen Brown of Stephen Brown Landscape Architecture, Simon Swaffield and John Fairweather of Lincoln University and John Goodwin and Rachel de Lambert of Boffa Miskell) jointly tendered for this project and were awarded the contract.

To date the first Stage of this review project, the Auckland Regional Landscape Assessment Study (ARLAS) has been undertaken, this report documents the progress of Stage 1, its methodology, process and outputs.

2.0 The Brief

The 1984 Regional Landscape Assessment, as one of the first comprehensive landscape resource evaluation projects in New Zealand, adopted a 'public preference' rather than 'expert opinion' methodology. A key decision for the Regional Landscape Assessment review project was to pursue an updated public preference approach.

The Stage 1 brief as established in the Assessment Methodology Report was as follows:



The focus of Stage 1 was therefore to complete the work that would enable Stage 2, the public preference testing stage, to be undertaken.

The inclusion of work in relation to the natural character indicators stemmed from work being undertaken by the Ministry for the Environment (MFE) 'Environmental Performance Indicators for Natural Character' and the ARC's separate interest in this area. This part of the project has been discrete from the landscape assessment review, the primary objective of which has been the identification of the region's outstanding natural landscapes (RM Act Section 6(b)).

3.0 Stage 1 Outcomes

3.1 Workshops

A number of internal workshops have been held to advance Stage 1 both to agree the detail of the project process and methodology and to clarify the outputs required at each stage, including scoping the work for both Stages 2 and 3. In total 3 workshops were held as follows:

Workshop 1 - 3rd May 2002
Workshop 2 - 27th June 2002
Workshop 3 - 4th/5th November 2002.

Workshop attendees included Stephen Brown, Simon Swaffield, John Goodwin, Rachel de Lambert and Nikki Le Mesurier (1 & 2 only) from the Project Team; and Louise Gobby, Karen Baverstock (1 & 2 only) and Graeme Campbell (1 only) as client representatives. In addition Allan Rackham from Boffa Miskell Christchurch attended the Natural Character Workshop.

A summary of the workshop minutes is appended (Appendix 1).

3.2 Representative Samples of Regional Landscapes

The regional landscape types proposed for this study are based on a combination of biophysical and natural character indicators. They are:

- Coastal;
- Estuarine / Harbour;
- Ranges / Hills / Volcanic;
- Lowlands / Wetlands.

All landscape types have been field surveyed and photographs taken which represent the varied characteristics and qualities in each type.

Having taken some 1,500 photographs over a 5 month period, 30 were selected for each landscape type to be used in the next stage of the project, the Q-Sort Interviews and Analysis. This selection was based on the differing landform, vegetation and degree of modification exhibited in each landscape type. The basis for this selection is outlined in Appendix 2.

3.3 Natural Character Indicators

The natural character indicators were the focus of discussions at the second Workshop on the 27th of June 2002.

A definition of natural character resulting from an extensive consultation process undertaken by MfE is as follows:

Natural character is a term used to describe the naturalness of all coastal environments. The degree or level of natural character within an area depends on:

1. ***The extent to which natural elements, patterns and processes occur***
2. ***The nature and extent of modifications to the ecosystems and landscape/seascape***

The highest degree of natural character (greatest naturalness) occurs where there is least modification.

The effect of different types of modification upon the natural character of an area varies with the context, and may be perceived differently by different parts of the community.

Note: This does not include the ecological component of natural character.

Following that workshop and further meetings with the ARC, the following six natural character indicators were agreed:

- Landform modification;
- Waterform modification;
- Indigenous Vegetation cover;
- Vegetation Pattern;
- Buildings / Structures;
- Infrastructure.

These six criteria are listed below with a discussion of their use in the assessment of natural character values.

- **Landform Modification**

In most coastal environments in New Zealand there are relatively few modifications to landforms. However, major changes can occur with reclamation, roading, quarrying and mining, in particular. Lesser levels of change may occur through construction of access tracks, drainage works, contouring of sand dunes and hill country, and creating flat building platforms. Modifications of a significant scale are today likely to involve resource consents. *Assessed on a scale from totally unmodified to heavily modified.*

- **Waterform Modification**

Major changes to water bodies such as rivers and wetlands within the coastal environment can occur with artificial control of flow regimes, drainage and channelisation. These criteria apply principally to the land portion of the coastal environment, although outflows of rivers and streams cross the inter-tidal zone across beaches and mudflats. Waterform changes also apply to the ocean where there are modifications to the sea from unnatural causes (e.g. discolouration from sand

dredging, surf waves from artificial reefs). Modifications of a significant scale are likely to involve water permits or other consents. *Assessed on a scale from totally unmodified to heavily modified.*

- **Indigenous Vegetation Cover**

The presence of indigenous vegetation is indicative of a lack of modification. The greater the percentage cover of native vegetation, the higher the degree of naturalness. The presence of other vegetation such as forestry and pasture will result in a more moderate rating for this criterion compared to a highly urbanised area. *Assessed on a scale from unmodified original cover to absence of vegetation cover.*

- **Vegetation Pattern**

This criterion applies to the patterns of vegetation cover. It includes all types of indigenous and exotic vegetation. The key consideration is whether the patterns resulting from different vegetation types appear natural or artificial. This will usually depend on the regularity, linearity or geometry that result from commercial forestry, farming or development. It will also depend on the integration or contrast of these patterns with the underlying landform, e.g. relationship to natural ridge and gully landform. *Assessed from highly natural patterns to least natural patterns.*

- **Buildings and Structures**

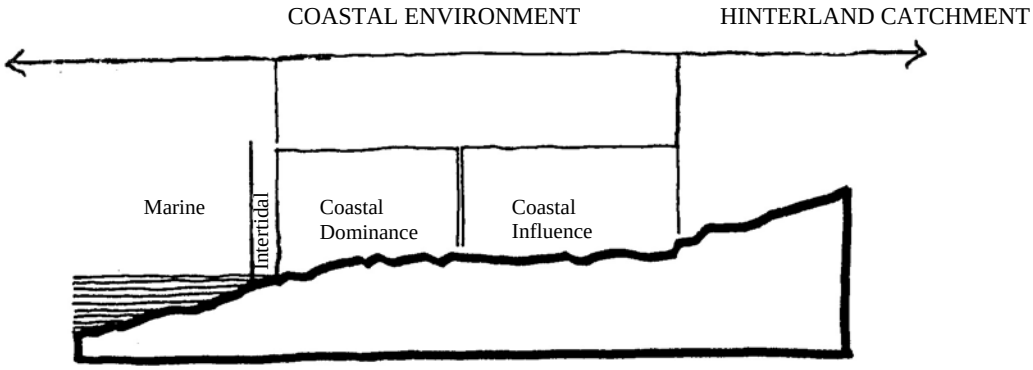
This criterion includes all buildings and any separate structures, e.g. telecommunication towers. It excludes linear structures such as transmission lines which are included as infrastructure. The number, density, scale and location of buildings/structures will influence the degree to which this criterion will affect natural character. These modifications will normally require resource consents unless they are of a small scale. *Assessed on a scale from no structures to an artificial built environment.*

- **Infrastructure**

This criterion includes linear features such as roads, tracks and paths, transmission towers/poles, lines and fences. Their number, density, scale and location will influence the degree to which this criterion will affect natural character. Unless they are major elements, e.g. transmission lines, many of these modifications may not require resource consent. *Assessed on a scale from no structures to an artificial built environment.*

It was also agreed that these indicators would be applied to four zones within the coastal environment:

- Sub-tidal;
- Intertidal;
- Coastal Dominance;
- Coastal Influence.



Having agreed the indicators, for natural character and the delineation of the coastal environment, this part of the first stage of the ARLS project was complete.

4.0 Stage 2

Stage 2 of the project involves:

(i) A Q-Sort survey of sample audiences within the general community of the Auckland Region, key interest groups, and resource managers and politicians to test their response to the characteristics and qualities within differing landscape types.

(ii) An analysis of the responses to determine which characteristics and qualities can be applied to identify outstanding and iconic landscapes in the Auckland Region.

A methodology for this stage is outlined in Appendix 3.

Following the third workshop the questionnaire to be used in the Q-Sort interview and the recording sheet were developed. They are attached in Appendix 4.

In order to assist with determining the Iconic Landscapes throughout the Auckland Region it was agreed that a research brief should be prepared to review literature and the arts to provide a further level of knowledge in relation to outstanding landscapes.

This brief is attached as Appendix 5.

Stage 2 is programmed to run from November 2002 to March 2003. An outline of the programme for this work is attached as Appendix 6.

Appendix 1 : Workshops

Workshop 1 : 3rd May 2002

A summary of the conclusions resulting from the first workshop is as follows:

1. Purpose

The purpose of the workshop was to:

(i) confirm/refine the methodology / process to be used for the Regional Landscape Assessment;

(ii) present and discuss the proposed refined methodology with ARC representatives.

2. Outcomes

Agreed outcomes from this workshop were:

- Rather than using the existing landscape units derived in the 1984 study (as the boundaries on these may no longer be valid and many units replicated landscape of the same 'generic type') it was therefore agreed that broad landscape types would be utilised based on a combination of biophysical and natural character indicators.
- The public perception of landscape would be derived from a Q-Sort process utilising photographs representative of the different landscape types.
- This process would be used to draw out and determine what characteristics and qualities the public considers to be present in outstanding natural landscapes.
- Once this is determined the characteristics and qualities can be applied as relevant across the region and outstanding natural landscapes within the Auckland Region determined.
- Landscape types proposed:
  - Coastal
  - Estuarine / Harbour
  - Ranges / Hills / Volcanic
  - Lowlands / Wetlands
- In order to achieve a managable Q-Sort approximately 30 images will be used per landscape type.
- Q-Sort questions will be along the lines of:
  a) Order these images in terms of 'Outstanding'.
  b) Where do you draw the line in terms of 'Outstanding Natural Landscapes'?
  c) What are the qualities that make it 'Outstanding'?
  d) What sort of changes would degrade that landscape?
- Agreed to do both intercept interviews, i.e. people in the street, and key informant interviews, e.g. ARC personnel, TLA's, schools, politicians etc.

3. Imagery Documentation

- Photos to be taken using a 35mm-70mm lens range.
- Sky to be a neutral backdrop and as similar as possible for all images.
- Tide to be similar for all images – mid-tide.
- Lighting to be similar, generally 10 am – 2 pm.

Workshop 2 : 27th June 2002

1. Purpose

(i) To update on field work progress in relation to completing the photography.
(ii) Update the project team on the MFE EPI work in relation to Natural Character.
(iii) To agree what indicators should be used for determining natural character in the Auckland Region.
(iv) To review this with the ARC.

2. Outcomes

Agreed outcomes from this workshop were:

- Provide a camera dedicated to this study and guarantee availability of a vehicle for field work to make the most of weather and tide opportunities.
- Extend the time frame to enable the photography to be completed during improved weather conditions.
- Natural character is a subset of landscape character.
- An overall scale from Endemic (Highly Natural) to Non-Endemic (Highly Modified) was agreed.
- It is highly likely that Regional Councils will want to be more refined than MfE.
- In terms of an overall 1 to 10 scale the Auckland Region's natural character is likely to range from 3 to 10, therefore the areas of high natural character in a Regional context may not register on a national inventory.
- A range of environments to consider natural character within was put forward – Wilderness – Working – Urban.
- The extent of the coastal environment needs to be delineated, e.g. water/land/water interface → hydrological catchment.

- The main focus of the EPI is on:

  - What have we got?
  - Where is it located?
  - How is it changing?

  with MfE's emphasis on the what and were (in relation to preservation of natural character) and Regional Councils' on the how (in relation to protection from inappropriate subdivision; use and development) Section 6(a) RM Act.

- The following table outlines the range of indicators generally agreed at the workshop.

		ELEMENTS	PATTERNS	PROCESS
ABIOTIC	**LAND**	Modifications to landform (Resource Consent)		
	WATER			Degradation of water quality (Sedimentation/ faecal coliforms)
BIOTIC	**IND VEGE**	Clearance (change in % of cover)	Fragmentation (Land cover data base)	Regeneration
	EXOTIC VEGE	Homogeneity (LCDB)	Geometry (Linearity) (Visual survey and aerial photos)	
	WILDLIFE			
(Infra) STRUCTURE		Presence (building consent) (Aerial photos)	Location Density (amount) Contrast? (Visual survey, aerial photos)	

- A possible outcome was for the MfE and Regional Councils (ARC) to undertake a common description / measurement of the natural character in a Region as a baseline. MfE would utilise this information as a basis to monitor how natural character is changing, whereas the Regional Councils would focus on the significance of the natural character baseline data and how to utilise it to determine what is appropriate – objectives, policies etc.

Workshop 3 : 4th/5th November

1. Purpose/Agenda

1. To confirm the photographs chosen for the various landscape types.
2. Review and amend questions for interviews.
3. Discuss the Key Informants and their number from each organisation.
4. Determine the intercept locations and the method.
5. Review the programme.
6. Discuss the issue of establishing Iconic Landscapes.
7. Review the criteria for determining the Landscape Types.

2. Agreed Outcomes

- Need to cover the issue of iconic landscapes by way of a literature / photograph / poetry /painting search.
- 3 sets of photos required for each of the 4 landscape types (i.e. 120 photos) laminated and referenced.
- Agreed that we need to have a 5th set of photographs copied and laminated (i.e. 30 photos) from a combination of the 4 landscape types i.e. between 7 and 8 photos from each.
- Agreed to use caravan for intercept interviews.
- Agreed to get assistance for Researcher in the field.
- Documented criteria for choosing photos.
- Agreed study excludes urban and suburban areas.
- Agreed to run Q-Sort interviews at NZILA evening.
- Agreed John G and Louise to determine key informants. Includes:
  - ARC - all 13 councillors invited
    - key staff.
  - All other 7 TLA's to have 3 key informants, e.g. chair of Planning Committee, Senior Policy Planner, Senior Consents Planner.
  - Iwi Representation
  - Other key stakeholders
    - DOC
    - MFE
    - Forest & Bird

- EDS
- Interest Groups, e.g.
  - Federated Farmers
  - NZ Forest Owners Assn
  - Small Farmers
  - Farm Forestry
  - Property Council
  - Fish & Game
  - Outdoor Boating Association
- Others
  - NZ Herald
  - Metro
  - Adventure Group
  - Asian/Polynesian Community Representative

- Need to develop a Health and Safety Plan for Intercept Interviews.

- Replace the Objectives and Policies component of Stage 3 with the Iconic Landscapes brief.

Appendix 2

Selection of representative photos – 30 Coastal

Landform/topography	Beach type	Vegetation	Modification
Defined high coastal escarpment	Rocky shear	Intact native vegetation	No built development
Low escarpment	Rocky	Mixed native/exotic	Infrastructure roads/ powerlines
Dunes	Boulders	Exotic vegetation	Scattered houses
Hills / rolling land	Shingle	Forestry	Urban background
Lowland	White sand	Pasture	Prominent urban
Expansive bays and headlands	Black sand	Intensive land uses	

Selection of representative photos – 30 Hill Country / ranges

Landform/topography	Vegetation	Modification
Water bodies	Intact native vegetation	No built development
Ranges	Mixed native/exotic	Fencelines
Steep hills	Exotic	Infrastructure / roads, tracks/powerlines
Strongly rolling	Remnant native pocket	Sheds/rural buildings
Gently rolling	Native remnant trees	Individual farm houses
Enclosed	Forestry	Scattered low density houses
Expansive	Poor pasture	Rural residential
	Good pasture	Horticulture – glass houses
	Orchard	
	Horticulture	

Selection of representative photos – 30 Lowland / Wetland

Landform/topography	Vegetation	Modification
Saltwater wetland	Intact native vegetation	No built development
Freshwater wetland	Mixed native/exotic	Fencelines
Dune impounded lakes	Exotic	Infrastructure / roads, tracks/powerlines
Duneland, low lying plains	Remnant native pocket	Sheds / rural buildings
Plains	Native remnant trees	Individual farm houses
Low rolling lands	Forestry	Scattered low density houses
Expansive	Poor pasture	Rural residential
More enclosed	Good pasture	Horticulture – glass houses
	Wetland salt/freshwater	
	Horticulture	

Selection of representative photos – 30 Estuarine / Harbour

Landform/topography	Beach type	Vegetation	Modification
High escarpment	Rocky	Mangrove	No built development
Low escarpment	Rock platforms	Intact native	Infrastructure roads/powerlines
Hills rolling	Boulders	Mixed exotic	Scattered houses (low density)
Lowland	Shingle	Forestry	Urban background
Open harbour	Sandy	Pasture	Prominent urban
Estuarine	Mudflats	Intensive land uses	Port
River mouth			
Expansive bays and headlands			

Appendix 3

Stage 2 : Methodology for Q Sort Survey and Analysis

Method

The survey and analysis has five stages: preparation, respondent interviews, data entry and numerical analysis, summary interpretation, synthesis and report.

Step 1 Preparation

The preparation phase involves production of postcard size photographic prints, which are laminated to reduce wear and tear, and randomly numbered. Each Q sort will require 3 complete sets, to allow for an office reference set, a field work set, and a field back up set. Hence there will be 90 cards for each Q sort, and 450 in total. The field interviewer will also require prepared response sheets, with pre-printed boxes to record the distribution of photo numbers, and sections in which comments, responses to supplementary questions, and biographical data can be recorded.

Before commencing the survey, an initial list of key informants will be drawn up, in consultation with the client and project team, and sites identified for the intercept surveys. The field researcher will also need to become familiar with the interview process. The first part of the field interviews are normally undertaken in the form of a pilot survey, in which the project leader trains the field researcher, whilst also trialling the selected Q sorts. For this reason, it is sensible to initially prepare only one set of cards, and to prepare the second and third sets once the selection has been confirmed in the pilot survey. Hence the preparation and interview phases overlap to some degree.

Step 2 Interviews

Q Sort requires respondents to sort photos into a sequence of piles. In this study the sorting will be based upon the instruction: "Please sort the different types of landscape shown in the photographs into a sequence from those which are most 'outstanding' to those which are least 'outstanding'". There will be a specified number of piles, and a specified number of photos allowed in each pile, with fewer allowed in the extremes of the range. The exact configuration of each Q sort will be determined after the photographic field work has been completed and the representative landscapes selected.

During the sorting process, the interviewer encourages the respondent to comment upon the different landscape types shown in the photos, and upon why they are being placed in the chosen location. When the sort is complete, the interviewer will note the reference numbers of the photos placed in each pile, and the respondent will be asked several supplementary questions (in this case: where do you draw the line in terms of what types of landscape are clearly outstanding and what are just good? What are the qualities that make the chosen landscape types outstanding? What are the sort of changes that would be inappropriate in this type of landscape, and that would reduce the qualities that make it outstanding?). Finally, basic biographical details are noted.

An experienced interviewer will be able to complete around 4 key informant interviews for which appointments have to be made in a day, and 10 intercept surveys in a public place.

In planning the survey, it is necessary to decide upon the sampling approach for respondents. Q sort analysis does not require a random sample. It is more typical to undertake a 'theoretical' sample, which seeks interviews with key informants from a range of relevant stakeholder groups. However, in a diverse community it is also desirable to seek a stratified sample of representatives from different parts of the community who may not be seen as formal stakeholders. For the Auckland regional survey, both key informants and public intercept surveys are proposed.

In estimating the time required, the critical variables are the number of survey interviews to be undertaken in total, and whether they are key informants or intercept surveys.

There are two influences on total sample size: analysis, and representativeness. Analytically, for a single Q sort, Simon's research has found that the factors stabilise (i.e. the addition of further responses makes little if any difference to a factor array) by the time there are 12 people loading on a factor. However, not all respondents load significantly onto a factor; a typical multi- factor solution may incorporate 60-70% of all respondents (the remainder produced highly individual responses). Hence, a three factor Q sort will need between 60-70 respondents to be confident that the results have identified a robust set of factors. In this survey, we plan 5 different Q sorts, based on the generic landscape types present in the region. At this stage we have no idea whether there will be 1, 2, 3 or even 4 factors for each of these types. We must therefore plan for at least 5 x 4 factor Q sorts, which suggests a sample of 350. This would ensure that the factors were stable.

The other influence is the need for credibility in terms of the representativeness of the respondents, in relation to the regional communities. Q sort identifies ways of valuing landscapes that are present in the community from which the respondents are drawn. It does not predict the values that characterise the population as a whole. In a survey of this sort, it is important that respondents are drawn from all sectors of the regional community. This community is very diverse: geographically, ethnically and culturally, and socially. We propose to undertake key informant surveys which draw upon people from the main stakeholder and ethnic groups in the region. To complement this we propose intercept surveys in a public space in each of the Districts of the region.

In a smaller more homogenous community Simon has found 50-60 key informants provides a good representative range. Here we propose 150 region wide. For the intercepts, we propose 5 x 50 (hence allowing for the possibility of district specific factors). This would come to 400 in total, which comfortably covers the analytical requirements in terms of different landscape types. Each location in the intercept survey would include a mix of landscape types. A similar mix will be used for the key informants, but there may also be opportunity for individual informants to undertake more than one Q sort, if they are willing. This will further increase the strength of the results.

Step 3 Data Analysis

Once the surveys have been completed in the field, the numerical distributions are entered into the software package, and the relevant comments transcribed into notes for each respondent. The analysis is undertaken in two steps: first, a numerical varimax factor analysis which identifies the factor arrays (i.e. typical distributions) that provide the best statistical explanation of the overall results. Second, a qualitative analysis of the factors that have been identified, based upon the content of the photographs, and the comments made upon them. Numerical and qualitative content analysis of the recorded comments on thresholds, qualities and change will also be needed.

Step 4 Summary Interpretation

Finally a factor interpretation is prepared that draws together the data into a written account of the factors, summarising the survey respondents' views on which landscape types are clearly outstanding, why, and how they are vunerable. This final interpretation may find that there is more than one factor for each Q sort (i.e. there are two or more ways in which respondents have evaluated the landscape type). In this case, the analysis also identifies how these factors differ, and where they have commonalities. The basic Q sort analysis will not compare the findings for the different landscape types. This will need to be incorporated into the synthesis and reporting stage of Stage 2.

Step 5 Synthesis and Report

A synthesis of the above material into a report.

Output

The output from the Q sort survey will be an in-house report that includes:

- tabular summaries of the factor arrays for each of the 5 Q Sorts;
- graphic illustrations of the photographs in each factor array, arranged in the distribution identified by the factor (one A4 sheet per factor);
- a written characterisation of each factor, including selected quotes from respondents that illustrate its main features;
- identification of commonalities and key differences between the factors in each Q sort;
- tabular summaries of the responses to the supplementary questions; and,
- a summary tabular analysis of the biographical characteristics of the respondents who load upon each factor.

Additional Surveys

There are additional survey opportunities to increase public awareness of the overall assessment. It would be a relatively simple task for the ARC public relations team to prepare a package for distribution to schools and/or councillors based upon the Q sort

survey, which enabled geography teachers to undertake the survey in their classes. This would significantly enhance the public profile of the survey, whilst engaging future generations in the task. A summary response form could enable the numerical data to be returned. Additional time would need to be budgeted to analyse this data.

A second opportunity would be to prepare a web based survey based upon the basic Q sort, which enabled on-line responses. There is precedent for this approach in the US.

Appendix 4

Q-Sort Interview and Recording Sheets

- **PREFACE**

The purpose of the exercise is to identify the outstanding natural landscapes of the Auckland Region.

Outstanding natural landscapes should be reasonably self apparent and reflect values held by the community at large.

- **QUESTIONS**

1. Please order these photographs from those which represent the most outstanding natural landscapes to those that least fit this description.
2. Please identify those landscapes which you regard as truly outstanding.

   (Choose as many or as few as you like)
3. What are the characteristics / qualities that make these landscapes truly outstanding?
4. What changes or modification would degrade these outstanding natural landscapes?

❑ RESPONDENTS DETAILS

Please could you provide the following information:

- Gender — Male ☐ Female ☐
- Age — Under 20 ☐ 20-30 ☐ 30-40 ☐ 40-50 ☐ 50-60 ☐ Over 60 ☐
- Ethnicity — European NZ ☐ Maori ☐ Polynesian ☐ Asian ☐ Other ☐
- Occupation: _____
- Where Do You Live? _____
  (Suburb/Town/Area)
- How Long Have You Lived in the Auckland Region? _____

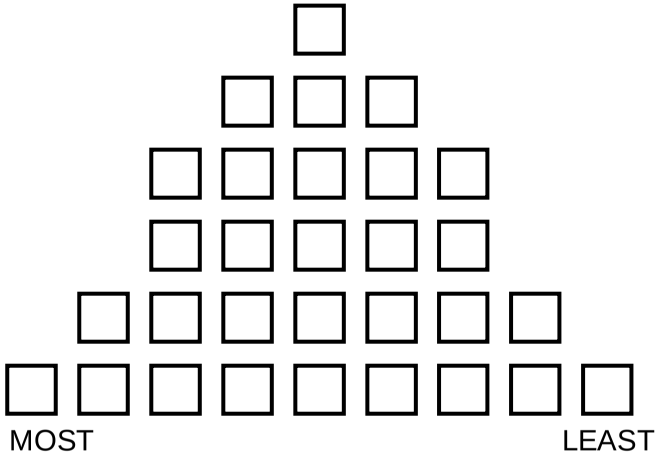
❑ **NOTE:**

- This information will only be used for Analysis.
- You will not be identified individually.

RESPONDENT NO. ☐

SORT

- Coast ☐
- Estuary ☐
- Hill ☐
- Lowland ☐
- Combined ☐

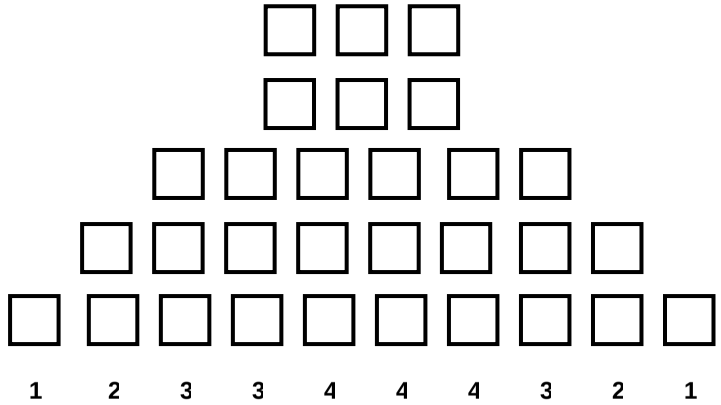


OPTION A

Intercept & Key Informant Interview

RESPONDENT NO. ☐

SORT
- Coast ☐
- Estuary ☐
- Hill ☐
- Lowland ☐
- Combined ☐



OPTION B

Appendix 5

Iconic Landscapes : Research Brief

Background
The purpose of the Auckland Regional Landscape Assessment Study (ARLAS) is to identify the outstanding natural landscapes of the Auckland Region. It will address the requirements of the RMA Section 6(b). The main part of the study comprises a Q Sort survey of public and key informant views. This needs to be complemented by a summary review of 'iconic' landscapes that feature within literature and the arts. This brief describes the requirements of this survey review.

Aim
To determine landscapes within the Auckland Region that have been recognised within literature and the arts as being particularly notable for their natural qualities and that may be described as 'outstanding'.

Scope
The review is to include relevant landscape references in recognised literature – both prose and poetry, in painting and sculpture, music, photography when it has been acknowledged as being a significant example of cultural values, and related types of cultural production.

The review should identify:

- Location
- Date and author / artist
- Particular landscape qualities highlighted in the work.

The survey should include both urban and rural locations, provided they can be described as 'outstanding' and 'natural' (e.g. including the volcanic cones).

Selection
The study should focus upon secondary sources as much as possible – anthologies, exhibition / collection catalogues, song books / record catalogues etc.

There is no limit upon time span: the inventory can include pre-European landscapes identified in published Maori historical sources, early settlers' accounts, colonial and Victorian accounts, and 20th century sources.

Programme
Allow 10-12 days for primary research, and 5 days to draft a summary report. Total 17 days.

Output
A draft report that includes:

- Inventory of landscapes that have been recognised as outstanding;
- Description of location, plotted on a map of the region;

- Selected examples of prose or poetry which distil the particular qualities of well recognised landscapes (might include music titles, words of songs, etc).

Report Format
Written description of key iconic landscapes, incorporating illustrative quotes etc, tabular inventory of locations and scenes, reference map.

Summary
The key requirement is to identify well recognised 'iconic' landscapes, and to provide some compelling and evocative evidence of their claim to be outstanding.

Reporting
To John Goodwin.

Completion Date
End January 2003.

Appendix 6

Work Programme

Stage 2 – Q-Sort Survey and Analysis

2.1	**Preparation**	**4 Nov**	**Nov 22**
2.1.1	*Preparation of 1 set of prints*	4 Nov	11 Nov
2.1.2	*Preparation of Response Sheets*	4 Nov	11 Nov
2.1.3	*Undertake Pilot Survey*	11 Nov	15 Nov
2.1.4	*Identify Sites for Intercept Survey*	11 Nov	15 Nov
2.1.5	*Identify key Informants*	11 Nov	15 Nov
2.1.6	*Produce 2 additional sets of photos*	18 Nov	22 Nov
2.1.7	*Organise key informant Interview dates*	18 Nov	22 Nov
2.1.8	*Review with client*	18 Nov	22 Nov
2.2	**Survey**	**25 Nov**	**31 Jan**
2.2.1	*Undertake initial key informant interviews (40)*	25 Nov	13 Dec
2.2.2	*Undertake initial intercept interviews (60)*	25 Nov	13 Dec
2.2.3	*Preliminary Analysis*	16 Dec	20 Dec
2.2.4	*Complete key informant interviews (max 150)*	6 Jan	Jan
2.2.5	*Complete Intercept interviews (max 250)*	6 Jan	31 Jan
2.3	**Data Entry & Analysis/Interpretation**	**3 Feb**	**7 March**
2.3.1	*Data Entry*	3 Feb	7 Feb
2.3.2	*Analysis*	10 Feb	13 Feb
2.3.3	*Factor Interpretation*	16 Feb	28 Feb
2.3.4	*Summary Interpretation*	3 March	7 March
2.3.5	*Review with client*	3 March	7 March
2.4	**Reporting**	**3 March**	**28 March**
2.4.1	*Draft Report*	3 March	14 March
2.4.2	*Client Review*	17 March	21 March
2.4.3	*Final Report*	24 March	28 March

Auckland Regional Landscape Assessment
for
Auckland Regional Council

Stage Two

Public Perceptions of Outstanding Natural Landscapes in the Auckland Region

John R Fairweather
AERU, Lincoln University

and

Simon R Swaffield
Environment Society and Design Division,
Lincoln University

In association with Boffa Miskell Limited and Stephen Brown Landscape Architects

May, 2003

Ph.: O3 325-2811
Emails: fairweat@lincoln.ac.nz
swaffies@lincoln.ac.nz

Contents

List of Tables

List of Figures

Acknowledgements

We acknowledge the assistance of Auckland Regional Council staff, in particular Louise Gobby, and a number of field workers employed by Boffa Miskel over the course of the project. Rachel de Lambert and John Goodwin of Boffa Miskel and Steven Brown, landscape Architect, contributed the photographs and contributed to the interpretation of the results. Crystal Maslin provided expertise for the illustrations. We also acknowledge the contributions of the respondents to the survey.

Summary

This research reports on how members of the public and some key informants defined outstanding natural landscapes in the Auckland region. A total of 219 respondents completed 229 responses to photographs presented in sets of 30 for coastal, estuary and harbour, lowland, and hills landscapes, plus a combined set with examples from all four types of landscape.

Results show that there are two distinctive ways in which the public evaluates the qualities of natural landscapes in the Auckland Region. These are described in the report as ‘factors’ due to the method by which they were derived. The two factors are broadly consistent across the different landscapes in the region and account for a very large proportion of the responses. In the case of hill country landscapes, the evaluation is slightly more complex. Based on these factors, the report identifies the types of landscape that respondents describe as truly outstanding.

The first factor characterises outstanding natural landscapes in terms of ‘wild nature’. This factor values natural landscape most highly when there is no evidence of human presence, modification or management. The landscapes that are selected as ‘truly outstanding’ are those which are closest to the pristine environments in the land types under consideration.

The second factor also values many pristine environments, but in addition evaluates some types of modified environment as being outstanding natural landscapes. This represents a ‘cultured nature’ position in which the presence of humans undertaking recreational activity, or some forms of low intensity production within a landscape, is considered to be consistent with it being an outstanding natural landscape. The main indicator of this factor is that landscapes which include a picturesque mix of bush and extensive pastoral agriculture on hills and lowlands are highly valued, whilst relatively unmodified salt marsh and wetland are less highly valued (as being unattractive and somewhat inaccessible). Hence for Factor 2 ‘cultured nature’, not all pristine environments are recognised as having potential to be an outstanding natural landscape, whilst some partially modified landscapes are regarded as truly outstanding.

When the photographs identified as truly outstanding by each factor in each type of landscape are combined, an overall pattern of public response can be identified, with a reasonably high degree of consensus about the characteristics of landscapes that warrant the designation of being ‘outstanding natural landscapes’. They include pristine and relatively unmodified coastal environments, estuaries and harbours; unmodified wetlands with standing water; lowland bush; and picturesque or open hill country that includes a significant proportion of bush or bush remnants, with minimal presence of human artefacts or buildings.

Chapter 1
Introduction: Research Objective and Approach

The Auckland Regional Council has responsibility under the Resource Management Act 1991 for the integrated and sustainable management of natural and physical resources, at a regional scale. The protection of outstanding natural features and landscapes from inappropriate development, subdivision and use is recognised in Section 6(b) as a matter of national importance. In order to help meet the requirements of Section 6(b), Auckland Regional Council has commissioned a landscape assessment to identify the natural landscapes within the Region which should be recognised as outstanding, and to describe the qualities and attributes that make them outstanding and that may be vulnerable to inappropriate development.

Consideration of Section 6(b) matters in the Environment Court in recent years suggests that 'outstanding' natural landscapes should be reasonably self evident within the context in which they are being considered. In this report, we present the results of a public survey intended to identify how the Auckland regional community perceives outstanding natural landscapes. The objectives of the report are (1) to document, using a photographic method, how members of the public and some key informants perceive and define outstanding natural landscapes in the Auckland Region, and (2) to record the characteristics that they attribute to outstanding natural landscapes. The report is part a wider study, and will provide input into the expert delineation of outstanding natural landscapes at a regional level in Stage 3 of the overall project.

Drawing on recent research experience in investigating perception of natural character in New Zealand (Fairweather and Swaffield, 1999, 2000, 2002, 2003; Fairweather, 2002; Newton et al., 2002), we apply some well-developed techniques in qualitative research to assess public perception of outstanding natural landscapes. We have found that using photographs is particularly useful in landscape perception work. Photographs allow for the presentation of a variety of landscape settings and qualities in an efficient way, and respondents enjoy commenting on and working with them.

The approach we have adopted in assessing outstanding natural landscapes is to use the Q method (Brown, 1980). This method provides stimuli such as photographs to respondents in such a way that they are free to express their own view on the topic of research. Typically, about 20 to 30 photographs are sorted in order from those which the respondent likes, approves or judges to have some quality, such as outstanding natural landscape, to those which they judge to least represent the nominated quality. The photographs are sorted into piles and receive a score corresponding to the pile. The scores are recorded, and quantitative analysis then identifies characteristic and distinctive ways of sorting the photographs, which are common to a number of respondents. These are called factors.

While respondents are ordering the photographs, they are also interviewed, and asked to explain why they sort the items in the way that they do. These comments complement the scoring and are a vital way in which the thoughts and feelings of the respondent are recorded. They are used to interpret in detail the factors that are identified in the quantitative analysis. In

effect, the Q sort method is a way of using quantitative methods to assess qualitative judgements.

Previous research (Fairweather 2002) has demonstrated that when a dozen or more people 'load' on a factor, then the factor stabilises, that is, however many more people may be interviewed, it is highly unlikely that the main characteristics of the factor will change. When the analysis has identified one or more stable factors, therefore, we can be confident that these ways of evaluating landscape are present in the wider community. Furthermore, if a consensus emerges across a number of stable factors about the relative value of particular landscapes or attributes, then we can be confident that this evaluation is well grounded in the community. What we cannot do is to predict precisely what proportion of the community will hold any particular view. This does not appear relevant to the requirements of Section 6(b), and has not been pursued in the research.

Chapter 2
Use of Q Method with Photographs

2.1 Q Method

The Q sort distribution into which the respondent is asked to place the photographs is usually in the shape of the standard 'bell shaped' normal distribution (see Appendix 2). As there are only a few available spaces at the extremes of the distribution (i.e., the most or least outstanding), and more in the middle, this process requires the respondent to clearly discriminate between different landscapes, and to focus upon what they regard as an 'outstanding natural landscape'. In order to undertake the quantitative analysis, scores are assigned to the photographs selected in such a way that the photographs at the two ends of the distribution receive high positive or negative scores, while the photographs towards the middle receive a low score. The middle column of photographs is given a zero score, representing a neutral judgement.

The Q sorts are completed by a non-random sample of respondents within the regional population. Samples in Q sort are typically smaller than in public opinion surveys which use random samples, and often include between 20 and 60 people. In this study, for reasons that will become obvious, we have interviewed over 200 respondents. The methodology of Q sort aims to describe the range of distinctive ways (factors) of assessing a landscape within the regional community, as well as identifying where there is overlap or consensus between the factors. As a consequence, sampling is designed to tap into varied viewpoints, so that from a technical perspective, the sample needs to be diverse rather than strictly random or totally representative. Nonetheless, in this study, the sample of respondents does match the overall demographic and ethnic profile of the Auckland region reasonably well.

The Q sorts of all respondents are factor analysed, a process by which similar Q sorts are identified statistically. The results are presented in a form that shows a typical Q sort for each factor. This represents the choices of the respondents that contributed to that factor. The purpose of the factor analysis is to identify the main ways that the items are Q sorted within the sample of respondents, and in nearly all studies these are limited in number, typically about one to five.

The power of the Q method is that it provides a means to understand the underlying way that people think and feel about outstanding natural landscapes, and identifies distinctive groupings of landscapes that are regarded as outstanding. It is important not to confuse Q method with other studies that aim to make inferences about the views held by the population as a whole about particular landscape attributes (e.g., to determine how important statistically is the presence of water, or bush). For that type of research, the focus is on the quantitative characteristics of a random sample of responses. In Q method, quantitative and interpretive analysis is used to identify the qualitative characteristics of people's responses. It does not address the question of how these may be distributed among the population.

2.2 Photograph Selection

The environment in the Auckland region is particularly varied. In order to give respondents a practical sorting task it was necessary to present photographs separately for the different main types of landscape found in the region. The region was therefore divided into four broad categories of landscape, based upon underlying topography and land type: coastal, estuary and harbour, lowlands and hills. This approach has the advantage that it allows respondents to judge the qualities that may make a landscape outstanding against other similar types of landscape, without being unduly influenced by the relative scarcity of the underlying land type at a regional level.

It is also important to find out how respondents evaluate contrasting types of landscape relative to each other. A fifth set of photographs was therefore prepared to represent the region as a whole, using some taken from each of the four separate sets. 30 photographs were selected from the separate land types to create a combined set that shows the diversity of landscape characteristics in the region as a whole. Hence, a total of 120 photographs were used to represent the range of landscapes in the Auckland region.

The identification and selection of the range of photographs was undertaken by two expert landscape architects based upon the landscape character areas identified in the previous Auckland Regional Landscape Study (Brown, 1984), and upon their knowledge of changes to the landscape since 1984. The approach was to identify different landscape character units within the overall landscape types, and to select the 30 photographs which best represent the range of landscape characteristics of that land type across the region as a whole (The detailed method was described in the Stage 1 report). The survey was limited to non urban landscapes, reflecting the focus upon outstanding *natural* landscapes. The locations used in the survey, the land type category they were used to represent, and their distinctive characteristics are listed in the Appendices.

2.3 Conduct of the Interviews

Intercept interviews were undertaken at ten locations in the main population centres around the Auckland Region during December 2002 and January 2003. These locations were Manukau, Otahuhu, Panmure, New Lynn, Pukekohe, Newmarket, Orewa, Henderson, Remuera, and the offices of the Department of Conservation, the Auckland Regional Council and the Auckland City Council.

With the help of the Auckland Regional Council, sites were established in public streets, malls etc, where field interviewers could ask people passing by to co-operate and indicate their views on outstanding natural landscapes. At some sites a caravan was used for shelter and to promote the research. Tables and chairs were provided to make the sorting as comfortable as possible. In most cases, interviewers worked in pairs and worked from mid morning until mid or late afternoon.

People were generally happy to co-operate when asked, provided they had some time to commit to the sorting process. Q sorts took from 15 to 45 minutes depending on the personality of the respondent and their interest in the subject. Most were completed in 15 to 20 minutes. Each respondent completed a Q sort for either one of the land types, or for the combined Q sort. The allocation of each set of photographs to respondents was random.

In addition to the intercept Q sorts, a small number of people with a range of special interests such as councillors, council staff (planners), government agencies (DoC, MfE), an iwi representative, conservation advocate, and developer were invited to act as key informants. Most of the key informants who were available completed two Q sorts and the associated interviews, including one of the land type Q sorts and the combined Q sort. There was a total of ten key informants in the overall sample and they completed a total of 18 Q sorts.

For each interview, the 30 photographs from one of the land types were spread out on a table, and the respondent was asked to arrange the photographs into piles, in accordance with the format shown in Appendix 2. The instruction used was: "Please order these photographs from those which represent the most outstanding natural landscapes to those that least fit this description".

The distribution below shows how the Q sort was structured, and the scores assigned to each pile:

No. in pile:	1	2	3	3	4	4	4	3	3	2	1
Score:	-5	-4	-3	-2	-1	0	1	2	3	4	5

Hence, photographs placed at the extreme ends (the most and least outstanding) were more heavily weighted when determining the factors that summarise the responses.

Having ordered the photographs to distinguish between the most and least outstanding, respondents were asked to identify the threshold of what they regarded as "truly outstanding". They were also asked to comment upon the reasons behind their choices by stating the characteristics or qualities that made those landscapes truly outstanding, and were asked about what changes or modifications would either degrade those outstanding landscapes or improve them. These comments were noted on the record sheet.

2.4 Sample Size and Characteristics

Interviews were undertaken before and after Christmas 2002, and in the latter stages intercepts were targeted to ensure that the final sample provided a close match to the ethnicity of the overall population distribution for Auckland, as indicated by Statistics New Zealand census data for 2001. A total of 229 Q sorts was obtained from 218 respondents

Table 1 shows the demographic characteristics of the final sample of 229 Q sorts. The table shows that, overall, the final sample is a reasonable match to the regional population. For ethnicity, European New Zealanders and 'others' are slightly over represented and Asian, Maori, and Polynesians are slightly under represented. The age groups correspond reasonably well taking into account that the study included only people above school age. The sample has a lower number in the youngest age category and slightly more in all the intermediate categories. Consequently, the sample under-represents those under 20 and slightly over-represents the young adult categories. The number for the average years lived in the Auckland region was 26 and this indicates good familiarity with the Auckland region. The average years lived was similar across all Q sorts. Gender is well matched overall. The combined Q sort had more women than men.

Table 1: Demographic Characteristics of the Sample

	Coast	Estuary	Lowlands	Hills	Combined	Avg.	%	Census 01 %
Ethnicity								
European	34	24	24	27	44	31	67	63
Maori	4	4	4	5	6	5	10	11
Polynesian	4	4	4	3	4	4	8	13
Asian	5	4	4	4	5	4	10	13
Other		3	3	0	6	3	7	1
Subtotal	47	39	39	39	65	46	100	101
Age								
<20	3	6	6	6	7	6	13	30
20-30	9	10	6	12	15	10	22	15
30-40	11	8	8	5	14	9	20	17
40-50	8	4	5	6	12	7	15	14
50-60	11	6	8	5	9	8	17	11
>60	5	5	6	5	8	6	13	13
Subtotal	47	39	39	39	65	46	100	100
Average Years Lived In Auckland Region	30	25	25	24	24	26		-
Gender								
Male	21	22	19	17	22	20	44	48
Female	26	17	20	22	43	26	56	52
Subtotal	47	39	39	39	65	46	100	100

2.5 Factor Analysis

On completion of the fieldwork, all Q sorts were coded and then factor analysed. The analysis used the PQ Method and applied Varimax rotation to identify factors with two or more significant loadings on the unrotated factor matrix (i.e., two or more respondents selected this way of ordering the photographs). (See Brown 1980, Fairweather 2002, Fairweather and Swaffield 2000 for details of factor analysis methods).

Chapter 3
Results

3.1 Factor Analysis Results

Table 2 shows the core results for all the 229 Q sorts. For each Q sort there were either two or three factors identified (in the case of the Coastal Q sort, factor 3 had some respondents who loading negatively on it and these are considered as an additional factor). Some respondents do not load on any factors and these are known an 'no loaders' (NL). For all but three factors there were ten or more significant loaders, that is, respondents whose loading, or degree of association with the factor, was statistically significant. Analysis of previous studies (Fairweather, 2002) has shown that the characteristics of factors stabilise with ten or more significant loaders. Hence, all the factors may be regarded as both distinctive and stable factors, except for Coastal Factor 3 & 4 and Lowlands Factor 3. There were only two respondents loading on each of Coastal Factors 3 & 4, and only three respondents loading onto Lowlands Factor 3. These are therefore much less robust and little significance can be attributed to their detailed configuration.

Table 2: Core Results for each Landform

Land type	No. of Q Sorts	Factor					Total Loading		Usable Loading		Correlation between factors		
		1	2	3	4	NL		%		%	1 & 2	1 & 3	2 & 3
Coastal	47	22	17	(2)	(2)	4	43	91	39	83	0.72	0.13	0.1
Estuary	39	21	17			1	38	97	38	97	0.55		
Lowlands	39	25	10	(3)		1	38	97	35	90	0.2	0.1	0.6
Hills	39	14	11	10		4	35	90	35	90	0.5	0.6	0.24
Combined	65	42	21			2	63	97	63	97	0.55		
Total	229						217	95	210	92			

It is notable that, overall, 95 per cent of respondents loaded significantly on a factor. This compares with the more typical statistic of about 70-75 per cent. Hence, these results show that the factors identified account for nearly all the responses. Table 2 shows the total number of respondents loading on the factors for each Q sort and then shows the total usable number loading on each Q sort. Coastal Factors 1 and 2 account for 83 per cent of all responses to that Q sort, Estuary and Harbour Factors 1 and 2 account for 97 per cent, Lowlands Factors 1 and 2 account for 90 per cent, Hills Factors 1, 2 and 3 account for 90 per cent and Combined Factors 1 and 2 account for 97 per cent. These are unusually high loadings for a Q sort survey, and this gives us confidence that the survey has identified key factors which express the prevailing views of the population.

Table 3 also shows the correlation coefficients between each factor and this is a measure of the degree of similarity of the factors being compared. Some are quite similar, for example, Coastal Factors 1 and 2, and some are distinct, for example, Lowland Factors 1 and 3.

Because of the very high percentage of respondents loading on the main factors, and the very small numbers on the minor factors, the minor factors are not analysed in detail in the following pages. Coastal factor 3 & 4 and Lowland factor 3 are therefore noted but not examined further.

3.2 The Number of "Truly Outstanding Natural Landscapes"

When they had completed the Q sort, respondents were asked to indicate to the interviewer the place in the distribution that formed a cut off point between those photographs that were truly outstanding natural landscapes and those that were not. The average number of photographs showing a 'truly outstanding landscape' was not the same for each land type category or factor. Table 3 shows the data and for the Coastal land type the average was 11 in both factors. For Estuary and Harbour, nine in Factor 1 and seven in Factor 2. In the Lowlands it was ten and nine, Hills ten, eight, and nine respectively, and Combined 12 and 12.

Table 3: Thresholds for 'Truly Outstanding Natural Landscapes' (Average for all respondents in each Factor

Landform	Factor 1	Factor 2	Factor 3	Basis for analysis
Coastal	11	11		9
Estuary	9	7		6
Lowland	10	9		9
Hills	10	8	9	9
Combined	12	12		13

The overall average of these data is ten but this clearly disguises some significant variation. Furthermore, the average of all respondents on each factor does not always coincide with a clear threshold between columns, which is practically necessary in order to identify the key photographs for each land type in the factor distributions (the columns in the distribution correspond to 1, 2, 3, 9, and 13, which are the only practical thresholds for analysis). We have therefore taken the cut off point for truly outstanding to include the top nine photographs (4 columns) in coastal, lowlands and hills, top six photographs (3 columns) in estuary and harbour, and top 13 photographs (5 columns) in the combined Q sort. This averaged cut off slightly under-represents the number of landscapes identified as truly outstanding in the coastal and estuary land types, and slightly over-represents the number in the combined Q sort. Nevertheless, it appears to correspond well with identifiable thresholds in landscape characteristics in the land types in question, and is also consistent with the comments and overall characterisation of the factors.

In the detailed factor descriptions that follow, we present figures which illustrate both the full distributions of photographs for each factor (from most to least outstanding), and a figure that shows only the 'truly outstanding' landscapes in each land type. In the summary of 'truly

outstanding' landscapes for that landform we have combined the factors on a single page, so that it is possible to identify the consensus landscapes across factors that are 'truly outstanding'. It is this final set of photographs which provides the main basis for deriving attributes of outstanding landscapes, These can be subsequently applied in field analysis and delineation of landscapes 'on the ground'.

3.3 Factor Description for each Land Type Q Sort

The results are presented in the following order. First, we provide a verbal description of the photographs identified as representing the truly outstanding natural landscapes for each land type, as well as the bottom six photographs, which are clearly the inverse, i.e., not outstanding or natural. This provides an introductory objective account of the results.

Second, the photographs for each factor are presented as a figure that shows the Q sort distribution of the factor, with a colour coding system to indicate some additional information about the factor. Note that the single photograph rated by the factor as most outstanding natural landscape is offset to fit the page.

Third, the verbatim comments by respondents on the photographs, which are reported in Appendix 1, are collated into a summary of key themes. The comments are grouped into three categories: elements, characteristics and feelings. In some cases these distinctions overlap. Attention was given to comments about the most outstanding natural landscapes and the least outstanding natural landscapes rather than the comments about what would degrade or improve the landscape in the photograph. These latter comments often repeated what had already been recorded.

Finally, the photographs identified as truly outstanding in each of the land types are presented, with a summary account of their qualities. For each land type we present a single figure which includes all the photographs identified as truly outstanding natural landscapes by all the factors in that land type. The top of the figure shows the landscapes regarded as truly outstanding by all the factors on that land type, and the bottom of the figure shows the landscapes identified as truly outstanding by each factor where they are distinctive.

In the figures for the individual factors the following colour coding conventions apply. A photograph whose location in a factor distribution is statistically significantly different to its location in other factor distributions in that land type is identified with a red background. This indicates that the evaluation of these photographs by respondents is particularly distinctive to the factor in question. It will be rated much higher or lower than in other factors, and this alerts us to the probability that there is something about the landscape being portrayed in the photograph which is critical to the overall factor evaluation.

For the Q sorts with three factors it is also possible to identify those photographs that have a different score across the three factors (that is they are located in a different column in each factor), but which are not statistically significant in the overall factor analysis. These photographs are identified with a yellow background. This indicates that the photograph shifts location in different factors by several columns. Its attributes are not likely to be critical to the characterisation of the overall factor, but may certainly be indicative of the distinctive values of that factor, and may be sufficient to include or exclude a photograph from the 'truly outstanding' part of the distribution.

There are also consensus photographs upon which all the respondents undertaking Q sorts in a particular land type agree. They are identified by a black hatched background. This indicates the photograph is placed in the same place in all the factor distributions for that land type. If this is within the 'truly outstanding' part of the distribution, then the landscape attributes and qualities expressed in the photograph are clearly regarded as outstanding by all factors.

The unmarked (i.e., white edged) photographs are those whose evaluation is not critical or distinctive to a particular factor, nor entirely consensus. They may for example shift between two adjacent columns in the different factors in a particular Q sort.

Finally, a heavy black line indicates the threshold for landscapes identified as "truly outstanding" in the Q sort, as discussed above. Landscapes above that line are identified in that factor as truly outstanding natural landscapes. These are the types of landscapes that appear to warrant consideration for protection under section 6 (b) of the RMA and are combined in the 'Truly Outstanding Landscape' figures for each factor. However it is also important to note that in some land types, public perceptions of what constitutes an outstanding natural landscape are not entirely consistent with Environment Court determinations of what constitutes 'natural'. This issue is discussed in the concluding section, and will need to be addressed in Stage 3.

Coastal Factor One (See figure 1)

Top 9 "Truly Outstanding": Clean, open, wide, sandy beaches backed by cliffs and/or rocky shoreline, generally accessible; adjoining land is covered by bush, grass/scrub (not pasture) with minimal evidence of human habitation or artefacts.

Bottom 6 "Least Outstanding": Beaches or rocky shoreline with buildings to edge of land and/or coastal structures and defences.

Key Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Natural beauty. Native vegetation. Natural processes, forms. Steep and rugged. Variety.	Residential development, roads, housing. Exotic vegetation. Power lines. Unnatural structures, hard surfaces. Development too close to shore. Human intervention. Removal of vegetation.
Character	Untouched, uncorrupted by man, no man made development. Clean, unpolluted, clean water. Remoteness, openness. Grandeur, spectacular.	Intensive recreation. Commerce. Modified by coastal defences.
Feelings	Excitement, drama Refreshing. Pleasant place.	

Figure 1
Coastal Factor 1

Coastal Factor Two (see Figure 2)

Top 9 "Truly Outstanding": Clean, open beaches backed by dune systems, or backed by cliffs or rocky shorelines. Adjoining land covered by pasture with some native trees and bush, and minimal evidence of human artefacts.

Bottom 6 "Least Outstanding": Largely the same as Factor 1. Buildings adjoining either sandy beaches or rocky shores.

Key Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Natural. No buildings, people, houses. White sand. Dune grass (for protection). Good vegetation growth. Clear water, dynamic water. Natural vegetation.	Development. Houses too close. Power lines. Urbanisation. Too many elements. Lack vegetation.
Character	Rugged (slightly) steep. Untouched, quiet. Colours, textures. Distinctive. Uninhabited. Diversity. Integration of houses. Easy access.	Artificial. Not distinctive. Untidy, scrappy. Not permanent. Contrived. Populated.
Feelings	Free to roam. Nice to visit. Peaceful, serene. Dramatic atmosphere. Summer holidays.	Difficult to walk, poor access.

Figure 2
Coastal Factor 2

Summary for the Coast Q Sort Factors

Factors 1 and 2 are similar with a correlation of 0.72. They are similar in that they both identify undeveloped coastline with beaches and or cliffs and rocks as representing outstanding natural landscapes. They identify developed coastline as representing least outstanding natural landscapes. The photographs indicate that factor 1 prefers darker sand beaches as found on the West Coast, while factor 2 prefers white sand beaches with marram grass as found on the East Coast. (Photographs 3, 6 and 21 showing these sandy beaches are nearer to neutral for factor 1). Factor 1 dislikes photographs 11, 16 and 22 all showing rocky beaches with some houses, and these are rated lower than in Factor 2. Factor 2 accepts a greater degree of human intervention into the outstanding natural landscape, for example as pasture and marram grass, but not prominent or visible houses.

The comments in both factors emphasise pure nature but there is slightly more emphasis on this by factor 1, who made reference to attributes such as 'untouched', 'uncorrupted by man' etc. and made more frequent reference to native vegetation. Generally, both factors see man made intervention as an indication that the qualities that make an outstanding natural landscapes have been compromised.

The Coastal 'truly outstanding natural landscapes' are shown in Figure 3.

The key qualities may be summarised as:

Undeveloped coastline framed by medium to high relief, with bush cover or rough pasture and only very low levels of human modification that are clearly visually subservient to the overall setting.

Figure 3
Outstanding Natural Landscapes in Coastal Land Type

Factor 1 **Factor 2**

Estuary and Harbour Factor 1 (see Figure 4)

Top 6 "Truly Outstanding": A range of undeveloped shorelines, including beaches and dunes, salt marsh, and rocky shoreline backed by low hills. The presence of remnant or regenerating bush and mangrove, tall trees and shrubs with some pasture. An undeveloped land edge.

Bottom 6 "Least Outstanding": Hard edges, built structures. Mudflats. Houses to water edge or buildings over water.

Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Regenerating bush, re-growth, Indigenous vegetation. No development, houses etc, not artificial things, few people. Clear water. Abundant vegetation. Good habitat. Combination of vegetation, Complexity of environment.	Too much activity. Pollution. Houses, power cables. Inappropriate development, development. Altered, artificial, man made. Any construction.
Character	Beautiful. Quiet. Clean and green, healthy, clean and tidy. Natural Distinctive.	Destroyed habitat. Not peaceful. Dirty.
Feelings	Appealing to be in., Peaceful, good vibes. Identity as Kiwi. Remote.	

Figure 4
Estuary and Harbour Factor 1

Estuary and Harbour Factor 2 (see Figure 5)

Top 6 "Truly Outstanding": Undeveloped shorelines, including beaches and dunes backed by low hills. The presence of remnant or regenerating bush, tall trees and shrubs with some pasture. An undeveloped land edge, with only minimal evidence of human presence.

Bottom 6 "Least Outstanding: Mangrove, mudflats. Rocky shore. Poor access.

Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Sandy shores. (Lack of buildings, structures). More natural, not interfered with, natural look. Combinations of vegetation and water. Shades of green, colour contrasts.	Houses too close to shore. Unnatural, man made structures. Development (rock, buildings, factories, houses). Sludgy, muddy. Factories leading to pollution. Dirty. Mangroves.
Character	Typical of New Zealand. Serene and peaceful. Variety of elements. Brighter photographs. Clean and tidy.	Dull looking. Rocks unpleasant to walk on.
Feelings	Isolation. Enjoyable to visit.	

Figure 5
Estuary and Harbour Factor 2

Summary for the Estuary and Harbour Q Sort

The Estuary and Harbour Q sort has two distinct factors with a correlation of only 0.55. However, they have some similarities in what they identify as outstanding natural landscapes. Both factors agree that photograph 22 (showing low hills, bush and pasture) best represents outstanding natural landscapes, and both give similar scores to 26 and 8 which are consensus photographs (showing beach backed by dunes and tall vegetation). In all, they share five of the top six photographs. These photographs show variety of settings, native and exotic vegetation, sand and some pasture. There is a distant view of boats in one highlighted photograph.

The main difference between the factors at the upper end is that Factor 1 includes salt marsh backed by taller vegetation as truly outstanding, whereas Factor 2 omits salt marsh. Factor 2 also includes more developed shoreline higher up its Q sort distribution than does Factor 1. Greater contrast occurs at the other end of the array of photographs. Factor 1 rates hard edged shoreline and built structures as very low in terms of outstanding natural landscapes while Factor 2 downgrades mangroves and mudflats but is more neutral about developed shoreline.

The comments show both factors emphasise lack of man made structures and the clean, green, tidy characteristics. Their comments on the least outstanding natural landscapes show that factor 1 emphasises development but factor 2 emphasises apparently dirty mangroves and tidal march flats.

The commonalties among the two factors are photographs 22, 26 and 8. These show well-vegetated land in an apparently undisturbed state.

The Harbour and Estuary ‘truly outstanding natural landscapes’ are shown in Figure 6. They may be summarised as:

Open water, intertidal margins and shoreline which is highly natural backed by low to medium relief with significant areas of tall vegetation, bush and pasture, and only very low levels of human modification that are clearly visually subservient to the overall setting.

Figure 6
Outstanding Natural Landscapes in Estuary and Harbour Land Type

Factor 1 **Factor 2**

Lowlands Factor 1 (see figure 7)

Top 9 "Truly Outstanding": Shows wetland, with open water and no evidence of human artefacts but includes some pasture-covered hills and some bush remnants.

Bottom 6 "Least Outstanding": Improved pasture, buildings. Cultivation, drains, fences.

Key themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Good habitats. Textures and colours. Native vegetation, forest. (No exotics). (No built elements). Water. Rolling hillsides. Close to original. Natural cycles.	Modification. Human activity. Man made structures, residential development. Human patterns. Cultivation, ploughing, farming. Exotics.
Character	Natural, unmodified, no structures, original, untouched. Variation, combinations. Unspoilt. Original look.	Lack of variety. No colour. Denuded vegetation. Spartan. Artificial. Indistinct.
Feelings	Need to protect coastal margins.	Boring.

Figure 7
Lowlands Factor 1

Lowland Factor 2 (see figure 8)

Top 9 "Truly Outstanding": Open rolling country, clean pasture, well vegetated wetlands, lakes, some bush remnants or isolated trees.

Bottom 6 "Least Outstanding": Wet land or marshy ground; cropping land, drains, rough pasture.

Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Water, clear water. Water and land. Variety of elements, versatile. Colour contrast, nice colours. Hills. Trees. Pasture animals. Vista, outlook, scenic shots, water view. Native vegetation.	Dry looking plants. Drained. Factories. Water not clear; dirty water. Mud. Scrub (too much), Brown.
Character	Clean and green image, clean and unspoilt. Natural, untouched nature, natural looking. Green. Uncluttered, tidy, openness. Different shades of colour. Patterns.	Brown. Human intervention, development. Brown, looks like pollution. Dead looking, dying, dry looking. Messy vegetation, untidy, no order. Unattractive mud, muddy and dirty. Not well maintained, poorly managed, abandoned. Damaged, rotten. Not natural. Mucky.
Feelings		

Figure 8
Lowlands Factor 2

Summary for the Lowlands Q Sort

Factor 1 and 2 are dissimilar with a correlation of 0.2. Factor 1 identifies wetland and open water as the main indicator of outstanding natural landscapes. Photographs showing commercial activity, houses on farm land or intensively managed farm land are the least outstanding natural landscapes. Factor 2 favours hills, pasture and water with only some bush or trees. Lowest ranked are mangrove or well-covered land, cropping, drains or rough pasture.

The comments show that factor 1 emphasises the natural and unmodified landscapes along with native vegetation which in the lowland largely comprises wetland. Factor 2 also emphasises nature but mentions colours and the views, thus illustrating a pastoral preference which includes human use of the landscape for farming. It does not regard wetland as outstanding.

The consensus photographs are few and located in the middle of the arrays. The pure nature viewpoint of factor 1 is distinctive, sharing little with the acceptance of views showing production as demonstrated by factor 2. Only photograph 2, showing water, pasture and bush, is rated among the top six by both factors.

The Lowland 'truly outstanding natural landscapes' are shown in Figure 9. They may be characterised as:

Unmodified wetlands with areas of open water and well vegetated margins, and, open rolling pastoral landscape with lakes or watercourses, remnant bush and very low density of settlement.

Figure 9
Outstanding Natural Landscapes in Lowlands Land Type

Factor 1 **Factor 2**

Hills Factor 1 (see Figure 10)

Top 9 "Truly Outstanding": Higher relief hill country with either bush cover or bush with some pasture. Water views.

Bottom 6 "Least Outstanding": Cropping or intensive pasture, houses.

Themes from the interviews

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Trees down to water. Water and land. Native bush, trees (no clearing). No human elements. Green. Water, sea.	Farm land. (No water). Housing. Concrete. Development.
Character	Natural, pure. Untouched, undisturbed, unspoiled, pristine. Not man made. Serene, magical. Vistas, sea views. Diversity, combinations. Rugged hills.	Not authentic. Dead, dull. Not accessible. Barriers (fences).
Feelings	Smell the sea.	

Figure 10
Hills Factor 1

Hills Factor 2 (see Figure 11)

Top 9 "Truly Outstanding": Higher relief, pasture and some bush, views of water, intensive pasture and cropping. No fences.

Bottom 6 "Least Outstanding": Rough pasture and scrub, houses, fences.

Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	(No houses). Sea, water. Farms and livestock, countryside. Trees, vegetation. Pasture. Forestry. Native bush (1 mention only).	Man made structure, human intervention.
Character	Vistas. Combination (of hill, forest, water), contrasts (water, land). Distinctive. Undisturbed. Balance. Natural. Smooth contour, rolling.	Cluttered, mixed, scrappy, untidy, scraggy, weedy, not well managed. Brown, dull, grass dying.
Feelings		

Figure 11
Hills Factor 2

Hills Factor 3 (see Figure 12)

Top 9 "Truly Outstanding": Bush and tall trees, mixed pasture and bush. Some fencing, hedges and houses, water views.

Bottom 6 "Least Outstanding": Cropping, open pasture, forestry.

Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Water views, vistas, open view. Land and water. Trees to water. (No erosion). Wooded backdrop. Preserved trees, ridgeline. Hills. Pastoral landscape. Trees, not necessary native. (No man made structures). Native bush. Bush clad hills.	
Character	Diversity, combination (of bush, water, hills), mixture. Original, pure, most natural, natural. (Not barren), forested. Humans in harmony, sympathetic housing. Nice vista. Well managed. Interesting patterns. Ruggedness.	
Feelings	Relaxing	

Figure 12
Hills Factor 3

Summary for the Hills Q Sort

Factors 1 and 2 have some similarity with a correlation of 0.5, as do factors 1 and 3 with a correlation of 0.6. Factors 2 and 3 are only slightly similar with a correlation of 0.24. All three factors associate outstanding natural landscapes with higher relief. Factor 1 rates bush, and bush with pasture as outstanding natural landscapes while intensive agriculture, houses on farm land and pasture as least outstanding natural landscapes. Factor 2 rates as outstanding natural landscapes, mixed pasture and some bush. It accepts pastoral land use as being compatible with outstanding landscape, even relatively intensive use, but does not accept the presence of houses. Factor 3 is similar to factor 1 but has photographs with houses and sheep in a higher position and, at the other end of the array, selects out the one photograph of the Pinus radiata plantation as among the least outstanding natural landscapes.

Comments show that factor 1 and factor 3 emphasise absence of man made structures, and the presence of trees and water views. The former adds the unspoilt and pristine characteristics, while the latter adds living in harmony, consistent with having some photographs in the top of the array showing signs of human activity. Factor 2 comments are broadly similar to factors 1 and 3 but include more intense farming and the countryside.

The consensus photographs are well spread through the arrays. Photograph 15 is uniformly assessed as an outstanding natural landscape. It shows a mixture of pasture and bush on hills with high relief, and a distant view of water. Photograph 28 is highly rated as outstanding natural landscape for factors 1 and 3 but its complete coverage in bush reduces its value to factor 2.

The differences between these factors are subtle. They all favour high relief with some proximity to water. Factors 1 and 3 prefer tall trees with some pasture. Factor 1 favours native bush, while factor 2 accepts deciduous trees. Factor 2 also prefers a more production mix of pasture and bush remnants.

The Hill Country ‘truly outstanding natural landscapes’ are shown in Figure 13. They may be characterised as:

Relatively high relief with significant areas of maturing native vegetation interspersed with rough pasture and extensive open views. Landscape structure and vegetation patterns are visually diverse, and clearly express the underlying geology, landform and natural drainage. A very low density of settlement that is visually highly integrated into the overall setting.

Figure 13
Outstanding Natural Landscapes in Hills Land Type

Factor 1 **Factor 2** **Factor 3**

Combined Factor 1 (see Figure 14)

Top 13 "Truly Outstanding: Coastal, estuary and wetland, native vegetation, no pasture land, total absence of human artefacts.

Bottom 6 "Least Outstanding": Cropping and intensive pasture, human artefacts, fences, cultivation.

Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Trees to water. Combinations of bush, water, beaches, vegetation, rocks. Contrast colour, vegetation Water.	Lack of trees. Polluted ware. Too much development, human impact, commerce, obtrusive development. Modified, fences, houses, agriculture, drained wetland, monoculture.
Character	No man made influences, houses, Wilderness, untouched, natural, unmodified, undisturbed, pristine, isolated. Clean. No people. Recreation. Attractive. Drama, interesting, dynamic. Represents New Zealand, pre human New Zealand, distinctive, typical of New Zealand, rarity. Peaceful.	Ecosystem crumbling. Artificial, not natural. Dirty. Not distinctive.
Feelings	Solitude, isolation. Spiritual. Sense of place. Connotation of holidays, happy memories.	

Figure 14
Combined Factor 1

Combined Factor 2 (see Figure 15)

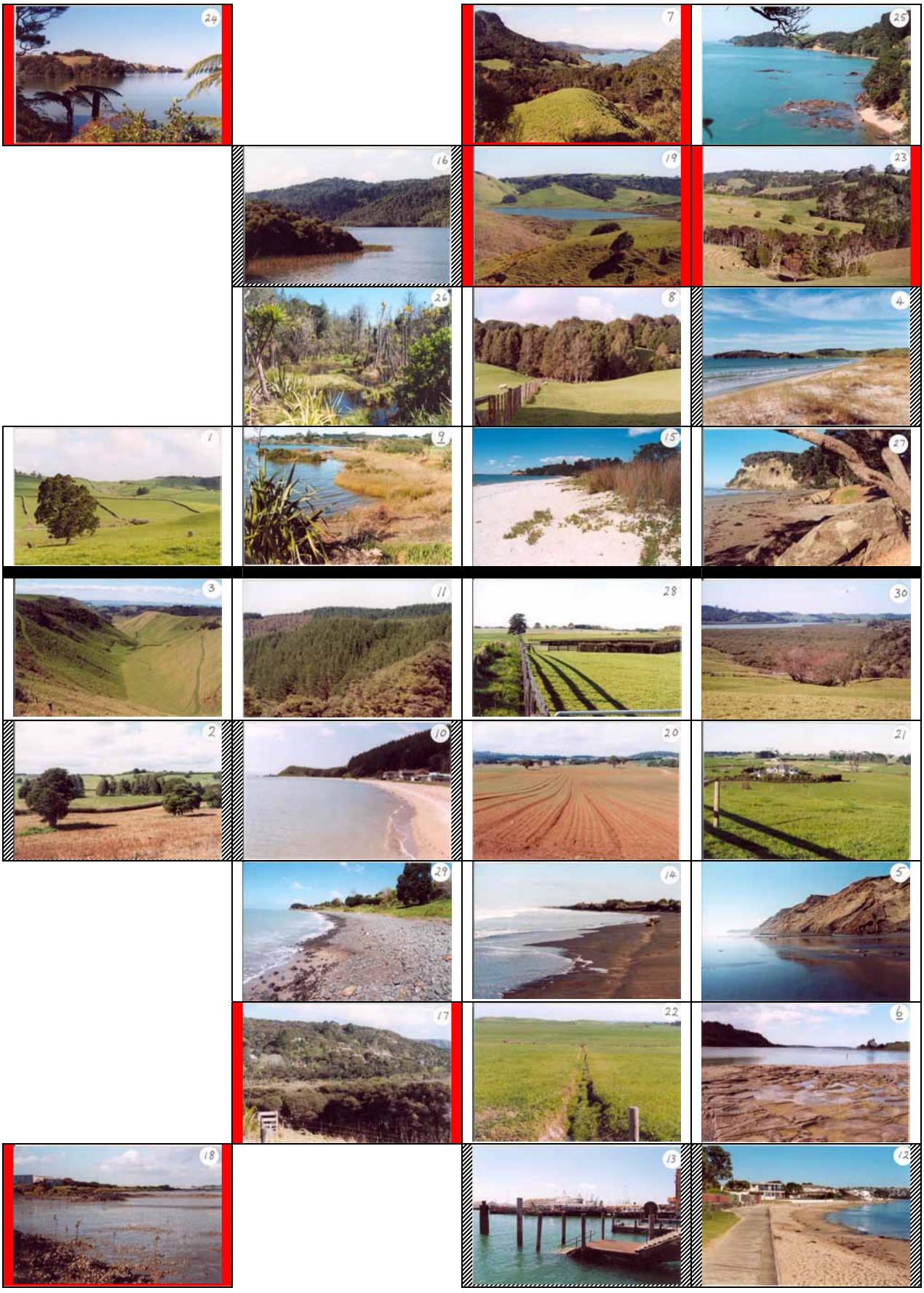
Top 13 "Truly Outstanding": Coastal bush, mixed pasture and bush, wetland.

Bottom 6 "Least Outstanding: Mudflats, wharf, buildings on to beach, drained pasture, houses in bush.

Themes from the interviews:

	Outstanding natural landscapes	Not outstanding natural landscapes
Elements	Combination of elements. Trees. Limited signs of development. Natural farmland, natural. Native vegetation. Water, sea view.	Too much development. Houses next to beach. Mudflats and sand. Lack of trees. Industrial development next to water. Power lines. Dead vegetation.
Character	Undisturbed. Tranquil, still. Nice scenery. Clean water. Natural. Active landscape. Versatile.	Boring. Rotten. Not natural. Messy looking. Dull looking. Not good for swimming, can't walk around it. Poorly maintained
Feelings		Boring

Figure 15
Combined Factor 2



Summary for the Combined Q Sort

Factor 1 and 2 are similar with a correlation of 0.55. In the top photographs for Factor 1 the main characteristics are coast, water, wetland and native vegetation with only a small proportion of pasture. Among the least outstanding natural landscapes are extensive areas of pasture, a structure in the sea, fences and cultivation. The top photographs for Factor 2 includes coast, bush and open pasture with bush remnants, and the bottom six include mudflats and mangroves and a bush covered hill with houses.

Comments show that Factor 1 emphasises pristine environments with visually interesting combinations of trees, water and vegetation with an absence of man made influences and a strong sense of solitude, that evoke strong feelings of NZ identity. Factor 2 also emphasises interesting combinations of trees, water and vegetation but includes farm land. There is less emphasis on pristine environments and more on scenic qualities.

Table 4 shows the different emphasis placed by each of the Combined Q sort factors upon the different land types. It is derived by assigning the Q sort score (used in the factor analysis) to each photograph in the Q sort and summing for each landform. The results show that Combined Factor 1 emphasises Coastal and Estuary and Harbour as outstanding natural landscapes within the combined Q sort, while Combined Factor 2 emphasises Lowland and Hills as outstanding natural landscapes

Table 4: Sum of Scores for Each Landform in the Combined Q sort

	Coastal	**Estuary**	**Lowland**	**Hills**
Factor 1	12	3	-11	-4
Factor 2	-4	-5	3	6

The truly outstanding landscapes that are common between the combined factors include examples of most kinds of unmodified landscape in the region (Figure 16). They include coastline backed with cliffs and/or bush-covered hills, coastline with beaches, dunes and open hills with pasture. They include estuaries and harbour shorelines with bush or other tall vegetation, hill country with mixed bush and pasture and sea views, and well vegetated lowland wetlands. The difference between the truly outstanding landscapes in the two factors in the combined Q sort are that Factor 1 features the west coast beaches and rocky estuary, while Factor 2 features inland rolling hills and mixed pasture and bush. As noted above, Factor 1 appears therefore to favour more unmodified ‘wild’ natural landscapes, while Factor 2 favours a more ‘cultured’, Arcadian mix of pasture and bush.

The significance of this combined Q sort analysis is that it shows that landscapes in all four land types are valued by different parts of the regional community, but that not everyone places the same emphasis upon any particular land type. Everyone recognises the special qualities of a range of unmodified or little modified Coastal, Estuary and Harbour, Hill and Lowland landscapes that feature water and tall vegetation. Part of the community places greater emphasis upon Coastal and Estuary and Harbour landscapes, the other part emphasises

inland Hill country and Lowland landscapes. All appear to warrant consideration under the section 6(b) of the RMA.

Figure 16
Outstanding Natural Landscapes in Combined Land Type

Factor 1 **Factor 2**

Chapter 4
Discussion and Conclusion

4.1 Distinctive Viewpoints

The survey of 219 respondents providing 229 Q sorts has identified a limited number of distinctive evaluations of the outstanding natural landscapes of the Auckland Region. There are two dominant factors associated with each of the coastal, estuary and harbour, and lowland land types, and three factors associated with the hills land type. These factors account for an unusually high proportion of the total number of respondents interviewed (Coastal 83%, Estuary 97%, Lowland 87%, Hills 90%). This means that we can be confident that the factors take into account nearly all of the views of people interviewed.

The identification of two or more factors in each of the land types indicates that there are some differences in emphasis in the way people in the community evaluate what constitutes an outstanding natural landscape. In the case of the Coastal land type the differences between the two factors at the 'upper' (truly outstanding) end of the distribution are very subtle and appear to reflect a greater familiarity with either east or west coast. Similarly, for the Hills land type, although there are three factors overall, there are only subtle differences in evaluating what is 'truly outstanding', and a high degree of agreement about the basic features of a 'truly outstanding' landscape. For the Estuary and Harbour land type, the difference between the factors lies in whether salt marsh is considered outstanding or not. In the case of the Lowlands, the differences between the factors are more marked, and respondents emphasise either wetlands, *or* pastoral landscape.

4.2 Consistency between Factors on a Particular Land Type.

Despite these differences shown by the factors, there was still a reasonably high degree of similarity between the dominant factors regarding coastal land types (0.72 correlation), and a modest degree of similarity between each of the estuary, lowlands and two hills viewpoints (0.5-0.6 correlation). Hence whilst there are significant statistical differences between the factors taken as a whole, there is also a degree of consensus. Typically, this consensus was greater in relation to what constitutes an outstanding natural landscape, than in what was least outstanding. This will be helpful in developing an overall evaluation. The consistencies are evident from the basic descriptors, and given the focus of the study upon identifying outstanding landscapes in a policy context, the following discussion is primarily focused upon the areas of consensus.

4.3 Summary of Viewpoints of 'Truly Outstanding Natural Landscapes'

The following section summarises the descriptions of the landscape characteristics that are most evident within, and distinctive to, the top-rated photographs that are described as truly outstanding in each land type.

Coastal:

Undeveloped coastline framed by medium to high relief with cliffs, bush cover or rough pasture and only very low levels of human modification that clearly are visually subservient to the overall setting.

Estuary and harbour:
Open water, intertidal margins and shoreline which is highly natural backed by low to medium relief with significant areas of tall vegetation, bush and pasture, and only very low levels of human modification that are clearly visually subservient to the overall setting.

Lowland:
Unmodified wetlands with areas of open water and well-vegetated margins, and, open rolling pastoral landscape with lakes or watercourses, remnant bush and very low density of settlement.

Hills:
Relatively high relief with significant areas of maturing native vegetation interspersed with rough pasture and extensive open views. Landscape structure and vegetation patterns are visually diverse, and clearly express the underlying geology, landform and natural drainage. There is a very low density of settlement that is visually highly integrated into the overall setting.

The key elements that are identified in truly outstanding landscapes are medium to high relief, water, tall vegetation, beach or rocky shorelines, and an absence of human artefacts.

The key qualities are legible and coherent landscape structure and patterns, variety, a sense of tranquillity, indigenous New Zealand identity, and a sense of openness and visual access.

Features which particularly detract from outstanding landscapes are presence of human artefacts, lack of trees, intensive production monocultures, modified or degraded ecosystems, and visual monotony or lack of variety.

4.4 Consistencies across Different Land Types: Wild Nature and Cultured Nature

There were also some consistencies in the results across different land types. This is shown in two ways. The first way is by the similar values and sentiments expressed in each equivalent factor across land types. Factors 1 & 2 Coastal, Factor 1 Estuary and Harbour, Factor 1 Lowlands, and Factor 1 Hills all express a set of values concerning outstanding natural landscapes described elsewhere (Newton et al., 2002) as ‘wild nature’. This is a position which values natural landscape most highly when there is little or no evidence of human presence, modification or management. This becomes expressed in the selection of photographs as ‘truly outstanding’ which are closest to the pristine environments in the land types under consideration.

In contrast, Factor 2 Estuary and Harbour, Factor 2 Lowlands, and Factors 2 and 3 Hills, all evaluate some types of modified environment as outstanding natural landscapes. This may be equated to a ‘cultured nature’ position (Newton et al., 2002), in which the presence of humans undertaking recreational activity, or some forms of low intensity productive activity, is quite consistent with a landscape being natural and may complement or even enhance its outstanding qualities. The main expression of ‘cultured nature’ values in these factors is an acceptance of mixed pasture and bush on hills, and a rejection of salt marsh and most forms of wetland.

These two overarching patterns of response (wild and cultured nature) were clearly expressed in the combined Q sort, in which two factors accounted for 97 per cent of respondents who did

that Q Sort. Factor 1 identified unmodified environments as outstanding natural landscapes. These were largely concentrated upon coastal, estuary and lowland wetland landscapes. This is a 'wild' nature position. Factor 2 expressed a more 'cultured nature' viewpoint, favouring coastal bush, and mixed hill pasture and bush (an Arcadian sentiment).

4.5 Relationship to Previous Studies

The overall distinction between 'wild' and 'cultured' nature described above is consistent with the findings of the Coromandel study of natural character (Fairweather and Swaffield, 1999), and with recent studies in Kaikoura, Rotoroa, and South Westland (Newton et al., 2002). These consistencies and similarities add weight to the validity of the findings.

The overall pattern of responses also has some significant similarities with the 1984 Auckland Regional Landscape Study (Brown, 1984), and largely confirms the findings of that study. It indicated that unmodified landscapes with either rocky or beach coastlines, open water, tall vegetation, and some measure of vertical relief were most highly rated, whilst developed, forested and agricultural landscapes were less highly rated. The 1984 study also showed that wetland and salt marsh was relatively poorly rated.

However the 2002 study adds several important dimensions to the 1984 results. First, the 2002 factor analysis has identified several distinctive sets of values. This reveals that whilst some landscapes and landscape attributes are very widely recognised as outstanding by all respondents, there are others which are recognised by some respondents but not by the others. Furthermore, by separating out the different land types into four different Q sorts, the 2002 study has drawn out public preferences for types of landscape that tend to be squeezed out of the reckoning in a single combined rating. The main examples of this are salt marsh, and mixed pasture and bush on hills, both of which are more widely and more highly rated in the 2002 results than in the 1984 study.

It may be that this finding is partly a result of the greater sensitivity of the 2002 methodology. However, the results of the combined Q sort suggest that there have also been some structural shifts in public preferences. Coastal landscapes, mixed pasture and bush hill country, and lowland wetlands have gone up in relative value compared to the 1984 results. This finding is entirely plausible in the wider policy and socioeconomic context. The increased value of coastal landscape is self-evident in the real estate market, reflecting population growth, increased wealth, better cars and willingness to travel. The increase in value of lowland wetlands reflects a growing appreciation of indigenous ecology, and awareness of the increasing rarity of these landscapes, due to drainage and agricultural intensification. The increased value attached to agricultural landscapes with pasture may also reflect the growing demand from urban commuters for rural lifestyle, and the consequential pressure on the more picturesque inland landscapes.

The sample demographics also hint at another dimension of change, which is the influence of the growing ethnic diversity in the regional population. Data on the detailed breakdown of factors by ethnicity for each land type Q sort are shown in Appendix 3. The table shows that the Asian respondents in the sample had a greater tendency to load onto the 'cultured nature' factor in the inland land types and for the combined Q sort, and analysis of the interview comments confirms the value placed by these respondents upon well-managed productive landscapes. This is not a perspective that is limited to Asian respondents, nor do all Asian respondents load onto the 'cultured nature' factor, but it is worthy of note. European New

Zealanders dominate the wild nature factor 1 in the combined Q sort and their comments emphasise this focus upon pristine environments. It is also notable that whilst Maori, Polynesian and European New Zealand respondents are spread across all factors, there are very few respondents of European ethnicity loading on the 'cultured nature' lowlands factor 2 (characterised by open pastoral landscapes). There is also a suggestion of a distinctive Maori/Polynesian coastal factor (Factor 3 noted in the introduction but not analysed in detail), which is focused upon rocky shorelines suitable for food collection. These observations are very tentative, but do suggest that growing ethnic diversity may be part of the change in landscape values, and warrants further research.

4.6 Implications for Stage 3 of the Project

The aim of this report is to present the basic findings of the Q sort interviews in stage 2 of the project. It is not intended to provide a final identification of the Auckland Region Outstanding Natural Landscapes, nor to develop a policy response. These tasks will be undertaken in succeeding stages of the project. However several issues have emerged from the analysis which will require consideration and resolution.

The identification of at least two Q sort factors on each land type require a decision about what level of agreement is needed in order for a particular type of landscape to be accepted as 'truly outstanding'. The interviews have identified some common landscape values, but also show some differences in the way certain types of landscape are valued. This is demonstrated in the summary illustrations of the 'truly outstanding' landscapes in each factor. To what extent is it necessary to have total agreement on what constitutes outstanding? Is it sufficient that a significant view exists within the regional community that particular landscapes and values warrant recognition and protection? There is no suggestion in either the legislation or Environment Court determinations that there must be total consensus upon the recognition of outstanding landscapes. The very high loadings on the factors in this study (accounting for 80-97% of all responses), the small numbers of factors, and the relatively high level of consensus across factors, all suggest that if a landscape is identified as truly outstanding in any of the factors, then it warrants consideration at a policy level. However this must be qualified by the need to be consistent with Section 6(b).

The second issue therefore is how to resolve some inconsistencies that have emerged between public perceptions, and legal precedent regarding the definition of outstanding *natural* landscapes. In the lowland and hills land types in particular, there are several landscapes identified as truly outstanding in one or more factors that show a relatively high level of human modification, for example field cropping, which would not meet the established criteria used for evaluating outstanding natural landscapes by experts. It will therefore be necessary to cull several landscapes from the set, before field application.

4.7 Conclusion

Distinctive viewpoints upon the characteristics of what constitutes outstanding natural landscapes in the Auckland Region have been identified. These viewpoints have been described in some detail. Taken as a whole, they indicate sets of values that are consistent with other studies and which can be associated with different types of landscape that occur with the region.

The qualities that characterise outstanding natural landscapes in each of the four land types can be summarised as:

Coastal: Undeveloped coastline framed by medium to high relief, with cliffs, bush cover or rough pasture and only very low levels of human modification that are clearly visually subservient to the overall setting.

Harbour and Estuary: Open water, intertidal margins and shoreline which is highly natural backed by low to medium relief with significant areas of tall vegetation, bush and pasture, and only very low levels of human modification that are clearly visually subservient to the overall setting.

Lowland: Unmodified wetlands with areas of open water and well vegetated margins, and, open rolling pastoral landscape with lakes or watercourses, remnant bush and very low density of settlement.

Hill Country: Relatively high relief with significant areas of maturing native vegetation interspersed with rough pasture and extensive open views. Landscape structure and vegetation patterns are visually diverse, and clearly express the underlying geology, landform and natural drainage. A very low density of settlement that is visually highly integrated into the overall setting.

References

Brown S. (1984), Auckland Regional Landscape Study. Auckland, Auckland Regional Council.

Brown, S.R. (1980), Political subjectivity. Applications of Q method in political science. Yale University Press: New Haven.

Fairweather, J.R. (2002), "Factor Stability, Number of Significant Loadings and Interpretation: Results from Three Case Studies and Suggested Guidelines ". Operant Subjectivity 25(1):37-58.

Fairweather, J.R. and Swaffield, S. R. (1999), Public Perceptions of Natural and Modified Landscapes of the Coromandel Peninsula, New Zealand. AERU Research Report No.241, Lincoln University.

Fairweather, J.R. and Swaffield, S. R. (2000), "Q Method Using Photographs to Study Perceptions of the Environment in New Zealand". Chapter 7, Pp. 131-158 in H. Addams and J. Proops (eds.) Social Discourses and Environmental Policy: Application of Q Methodology. Edward Elgar, Cheltenham, UK.

Fairweather, J.R. and Swaffield, S. R. (2002), "Visitors' and Locals' Experiences of Rotorua New Zealand: An Interpretative Study Using Photographs of Landscapes and Q Method". International Journal of Tourism Research 4(4):283-297.

Fairweather J. R. and Swaffield, S. R. (2003), "Public perception of natural character and implications for the forest sector". New Zealand Journal of Forestry 47(4):24-30.

Newton, B.M., Swaffield, S.R. and Fairweather J.R. (2002) "Public Perceptions of Natural Character in New Zealand: Wild Nature Versus Cultured Nature". New Zealand Geographer 58(2):14-25.

Appendix 1
Comments on Photographs

These are presented in the following order: Coastal, Estuary, Lowlands, Hills and Combined.

Coast Factor 1				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
10	High in native vegetation. Visible natural processes. Uncorrupted by mm development. Excitement of sea hitting land. Refreshing cleans and unpolluted.	Visible sign of human intervention. Residential development too close to beach. Roads impeding into coastal marine area. Lots of exotic vegetation. Development interrupting ridgeline. Power lines unnecessary.	Development through ridgeline. Pollution, rubbish. Clearing native vegetation. Structures in water. Residential development.	More natural elements used for infrastructure. More focus on native vegetation.
22	Lack of human modifications. Sense of remoteness. Untouched. Sense of grandeur. Steeper and more rugged. Water looks clear and clean. Native vegetation.	Unnatural structures. Lots of hard surfaces. Vegetation removed. Unsympathetic structures. Exotic vegetation. Hard structures imposing on foreshore. Development too close to shore.	Any man made structures. Exotic vegetation. Intensive recreational activities. Commercial activities. Removal of vegetation.	Remove hard structures proximal to foreshore. Planting natives – remove exotics.
23	Remoteness – open space. No man made structures. Drama of steep dunes. Pleasant places to visit. Variety of elements. Natural beauty.	Amount of development. Importation of sand. Lack remoteness. Evidence of human intervention.	Any human modification on beach. Buildings out of character. On ridgelines or above bush line. Removal or change of vegetation to exotics.	Tidy promenade. More attractive interface between road and beach – not materials.
31	Coastal and not pastoral (not majorly so). Undeveloped, no people. Naturally formed.		Any commercial development. Housing, Roading. Get away with walkways properly looked after.	
33	Untouched by man, people.		Any gross human	

	Spectacular nature of nature – cliffs – beachscape. Lack of pollution. If people to go need adequate provision e.g., rubbish bins.		intrusion – roads, power lines – indiscriminate rather than blending ie. straightening of contour by cutting through headland of tunnel. Roads can enhance natural coastscape.	
34	Less inhabitation. No housing. White sand – natural vegetation. Clear water. Remoteness (8). No people. Reminds me of Karatai beach – no people.		Housing. 24 has house but hidden. Wharves/marina. 8 can't do much to upset it.	

Coast Factor 2				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
7	Natural. Foliage in all of them. Slightly rugged appeal.		Reduction of foliage. Artificial untidy – ie. Rock walls. Man made intrusions.	More planting (grass or trees). Back from foreshore ie. Facilities. Development should improve the environment.
12	Untouched. No buildings (or very few). People are free to roam.	Compromised by development. Many look tidal and not so attractive.	Jet skis and motorboats. Remote housing in pristine areas. Roading.	Tidy rubbish off beaches.
16	Colours of water and bush. Textures. Distinctive geology and landscape. Depth of colour. Nice places to visit. Untouched – lack of dwellings and people.	Concrete ar5ifical looking. Houses too close to beach with poor transition between. Beaches look untidy. Lack picturesque qualities. Power lines.	Power lines. Any development.	Housing set back with natural transition to beach. Power lines underground. Beach cleaning.
20	Not urban – few houses. White sand. Unspoilt. Uninhabited, rugged. Dune grasses for protection. Distinctive ridgelines/landforms. Steep topography. Clear water – blue. Waves. Peaceful, serenity.	Rocks, pebbles, difficult to walk. Untidy, seaweed. Too urbanised. To many elements (busy)	Roading (cars, motorbikes). Cluttered housing. Commercial, industrial.	Clean beaches. Walkways over difficult terrain. Planting of trees.
25	Dramatic. Sense of drama	Intrusion of urban is a detractor.	In appropriate	Softening the interface

	and atmosphere. Sense of discovery. Want to explore them. Diversity is an element.	Scrappiness. Lack of distinctive natural character. Little bit transient, lacks permanent form.	development. Infringes on those natural. Pollution, siltation, disruptions to the land form. Loss of vegetation.	between natural/man made. More sympathetic siting of man made elements. Removing anything that tries to look natural to attempts to dominate or control the natural process.
28	Good vegetation growth. Dynamic water. Alive. Good for using (recreation). Integration of houses, rocks and bush. "Summer holidays". Natural state.	Contrived. Passive recreation not possible (poor access). Untidy state of beach. Lack of vegetation adjacent to beach. Presence of power lines. Stagnant.	Roading adjacent to beach. Litter. Removal of vegetation. Sympathetic development OK.	Remove concrete, soften with vegetation. Planting of trees. Undergrounding services. Better transitions to beach (buffer zones).
38	Quietness. Social fishing, recreation. Like to drive around coast (roads OK people not). Native trees, natural vegetation. Contrast of rock and vegetation. Easy to access.	Populated. Less healthy environment. Looks artificial.	Build up sand dunes. Man made structures. Losing vegetation from exotic wildlife.	

Coast Factor 3				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
42	Accessibility for a large family which include old people. Good sandy beach. Some protection and some shade.	Not accessible. Hard rocky terrain.	Litter. No toilet facilities. Development? (not really)	Nothing really
45	Green trees. Lots of trees. Nice sand	No trees. Nowhere to sit.	Not sure. Development? leave it.	Tidy up (#3). Tree planting.
46	Rocks. Colour of water. Looks reasonably clean.	Plain. Grass. Houses, buildings. (water not as clear, undeveloped areas)	Rubbish. Sewage. Polluted with boats. To much development. Development? not really.	Clean up beaches, rubbish bins.
47	Clean clear water. Sheltered from wind. Not too popular, crowded, quiet. Quietness.	Population. Crowded. Dirty. No privacy.	Buildings around the area would ruin the environment. Development? Lots of walkways, definitely. Access, no heavy development.	General tidy up.

Estuary Factor 1				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
01	Left most natural. Beautiful. Regenerating bush. Good habitat. Appealing places to be. Quietness.	Too much activity. Not appealing to visit.	Housing level. Farming. Removal of vegetation. Camp grounds.	Level of natural materials. Planting of vegetation.
5	Naturalness, few people living there. Complexity of environment. Indigenous vegetation. Distinctive landforms, headland. Lack of human modification. Remote feeling, peaceful. Clean, healthy.	Lack of naturalness. Aesthetically displeasing. Altered. Artificial. Dirty (7).	Any development. Non intensive rural OK. Obtrusive buildings and tracks (grass and fences OK) jetties, sea walls, drainage.	
07	Haven't been taken over to man. Regrowth is regeneration. Not really any great factories or housing right on the verge. People need access but try not to interfere too much.		Factories. Housing. Removal of natural bush. Reclaiming the estuary into liveable human space. Plant exotics ie. Norfolk Pine, Palms would degrade areas.	Replant native trees ie. Pohutakawa. Buy back coastal properties when up for sale and turn into parks etc. Walkways in bush and on farm areas to let people in to educate people as to what's there.
22	Typical of NZ clean green. Water clear. Abundant vegetation. Good habitat	Pollution. Houses. Destroyed habitats. Not peaceful. Bad energy.	Houses. Sympathetic housing OK. Unlimited development. Roads.	Remove human intervention. Plant native trees.

	for native fauna. Hidden away. Absence of houses and beds. Peaceful, good vibes.		Removal of vegetation. Water pollution.	
24	Lack of man made structures. Pure clean look. Natural vegetation. Unpolluted looking. Minimal human interference.	Presence of built structures. concrete. Lack of natural transition structures – water. Obtrusive scale of structures. Mangroves unattractive.	Intensive built structures. Unsympathetic structures. Removal of vegetation. Marine farms. Structures too close to shore.	Vegetation planting (natives). Remove rubbish. Retain public access. Limit recreation. Sympathetic buildings.
29	No artificial things. Beautiful. Not sure.		Buildings. Pollution.	
30	Cannot see any human activity. Some in the other photographs but not great disturbance. I came from a rural place in India.	Small hut or power cables. Any construction, any human activity. Cows grazing, still natural but not as much.		
31	No houses – concrete. No development. No rubbish – pollution. More bush the better.		Business, industrial development. Housing. Too many houses. Too artificial. Polluted looking.	
33	Except 22, they all have water and no signs of habitation. Therefore 22 and 9 have them, but all still very natural. 22 therefore it has ferns. More special cf 18 has good composition. Could be anywhere cf. 22 is more ours. Combination of	Inappropriate human involvement! Rocks brought in. Boat house, hard to walk past. Public space! Buildings, square box and pylons	Encroachment of human activity. Structures, buildings etc. Roads not sensitively done. Cutting and filling contours.	

	vegetation and fern types. Like these, in terms of outstanding natural landscapes. Important part of being Kiwi is going to beach. Like beaches.			
38	Clean, tidy, natural.	Man made. Dirty	Pollution. Development.	Clean up.

Estuary Factor 2				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
01	Sandy shores nice to be on. Clean looking water. Typical of NZ.	Dirty looking. Not good for swimming. Nasty looking shores to walk on. Presence of industry.	Pollution. Too many building.	Waste of time.
6	More natural. Not interfered with. Brighter photographs. Clean and tidy.	Sludgy, muddy. Factories leading to pollution. Dull looking.	Boat ramps. Any housing. Any development. Loss of access.	
14	Balance of trees and water. Lack of buildings. Serene. Female	Swamp like, unattractive. Barren. Neglected. Appears polluted. Difficult to walk on	Minor development only would be OK. Most development would degrade.	Remove building. Some areas are necessarily so. Planting of trees.
17	Combination of vegetation and water. Different shades of green. Colour contrast. Lack of development.	Looks dirty. Rocks and shelves unpleasant to walk on. Man made structures and development.	Buildings, roads, paths. Boats and passive recreation.	More grass. Less factories. More safety.
20	Natural look. Absence of houses. Peaceful.	Unnatural. Too much development.	Roads. Buildings, factories, houses.	Remove man made structures.
25	Isolation. Enjoyable places to visit. Looks natural. Undeveloped state. Looks clean.	Mangroves! Prolific growth around Auckland. Unnatural. Silt build up, choking water weed. Appears polluted due to industry. Tidal protection walls. Houses too close to shore. Rubble infill.	Any development causing runoff. Any development too close to the shore. Intensive recreation. Removal of vegetation. Leave pristine areas alone.	
26	No more structures. Represent a diverse sample of estuarine environs. Ecologically improvement –	Degree of built structure. Modification to coastline. Power lines. Urban areas not natural. Could be further modified without	Any buildings. Artificial structures (sea walls). Removal of vegetation (uncontrolled). Intensive	Prevent pollution and remediate. Prevent pedestrian access. Limit boating

	habitats. Typical NZ scenes. Holiday type places. Remote unspoilt.	detriment.	recreation. Boat mooring.	activities. Limit further modification. Setback buffer zones for buildings. Sympathetic design. Prevent tree removal.
36	Variety of elements in the picture. The way it's set out. Native trees	Lack of colour. Not very pretty.	Removal of trees.	Enhance with variety and some greening.
37	Scenery. Water. Trees. Clean. Blue water. Unspoilt.	Dirty. Not a holiday destination. Dull.	Factories. Wiping our trees.	Clean it up.

Lowlands Factor 1				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
03	Totally natural, not modified by man. Lack of any sign of man. Coastal marine area appeals. Coastal margins important to protect.	High percentage of man made structures. Plants although crops better than non organic.	Any loss of vegetation or clearance. Divert or pollute water or ecosystems. Intrusion of man made structures. Keep pristine.	Planting of natives. Removal of houses, fences etc.
05	Variation in landform. Water, land, vegetation, sky. Textures and colours. Native vegetation. Lack of man made structures. Dying vegetation shows cyclic nature of vegetation. Little sign of modification.	Lacks variety, boring. No colour or texture. Not distinctive. Human patterns obvious. Cultivation.	Drain wetlands. Motorbikes destroying dunes. Removal of vegetation even dead trees. Access needs to be limited. No development appropriate within these landscapes.	
09	No addition of exotics. No man made as can see. Mostly no structures or weeds.		If the water was diverted or depleted. Addition or exotics. Addition of weeds. Man made structures.	Add trees to pastoral land. Shelter belts to hide fences. Eradicate things like gorse.
12	Close to original. Natural landscape before human intervention.		Pollution (runoff mainly). Human interference. Removal of trees. Walking track removes the adventure.	No, leave completely alone. Nothing really except addition of trees.
14	Water. Untouched by human look. Natural		Commercial development. Concentrated residential.	Not sure. Access (minimal). Board

	ridgeline. Vista (view from land over sea to land again)			walks (1). Dune retention to help landscape.
15	Most natural. More native indigenous plants. Unspoilt. Water. Left in natural state	Built up with house structure. Land been ploughed and farmed	Water aromas. Native plant cleared. House built on	A lot more native planting.
21	Presence of water. Presence of native vegetation. Rolling hillsides. Very natural and pleasant to visit. Good habitats. Lack of human intervention.	Strong evidence of human activity. Large modification. Power poles. Denuded of vegetation and drained. Spartan, exotic trees. Artificial. Highly modified.	Draining wetlands. Planting of exotics. Removal of vegetation. Man made structures. Roads. Passive access OK, not major. Over staking.	Screening planting. More trees. Sympathetic colour schemes. Evergreen natives.
28	Limited human intervention. Ban animals but little built landscapes e.g., Dwelling, poles, power lines		Roads, disturbance to ground, dunes. Anymore removal of vegetation. Any more grazing.	Could by enhanced by revegetation, eg. 5 still is outstanding. eg. 24, track blocked off or made into board walk.
36	Native forest. Water. More natural, looks how it's suppose to.	Farmland everywhere. Not different to any other farm anywhere. Residential development.	Farming. Residential development. Heavy development.	Native planting. Pond. Board walks would last better.

Lowlands Factor 2				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
04	Presence of water. Presence of trees. Pasture and Animals. Rolling hills	Obvious human intervention. Cultivated patterns. Too flat.	Residential development. Traffic and roads.	Plant trees – natives - not forestry blocks. More animals, Non uniformity, no straight lines.
07	Clean green image. Natural, no humans. Green not dead. Untouched nature. Colour contrast (blue/green). Hills (presence of). Trees (presence of).	Brown, look like pollution. Human intervention. Houses – pollution. Dead looking messy vegetation.	Large buildings. Loss of trees. Commercial development. Any housing.	
10	Water and green. Vista, outlook. Uncluttered. 30 creek, sea, trees for shelter. People with the landscape. Different shades.		Dry looking plants. Bush fire.	Shade for the cattle. Fencing, got to have it. Fix the dryness.
11	Water. Lots of green. Trees		Pollution. Less of the natural look. Drained. Factories. Human traffic.	Planting. Removal of brown plants. Walks but nothing else.
16	Clear water. Scenic shots. Tidy and well maintained.	Looks untidy. Water not clear. Messy.	Development for conservation would by OK. Roads and houses OK. Complex structures not OK.	Not sure.
17	Presence of water. Contrast	Mud – unattractive. Untidy – not	Any development. Person	Control of weeds.

	of colour – water and land. Variety of elements (trees). Openness. Tidy. Patterns.	well maintained. No order.	track OK, but not roads etc.	Maintenance. General tidying and order.
22	Natural looking. Green. Presence of water and its combination with natural landscape matches well.	Dry looking – or dying. Impression of damage or rotten. Muddy and dirty. Not natural. Abandoned and poorly managed.	Pollution. Commercial/industrial. Residential OK. Drainage of water. Roading. Fences.	Introduce clean water. Leave to revert or look after better – better planning.
32	Versatile, water, colour.	Too much scrub, Water looking dirty. Looks polluted.	Chopping down the trees. Rubbish in nature. Buildings.	
33	Like the landscape. Water. View. Nice colours.	Messy. Colour.	Some housing.	Clean out messy plants. Replant.
38	Water. Natural looking. Native vegetation. Clean. Unspoilt.	Mucky. Development. Brown.	Removal of trees. Having development.	

Lowlands Factor 3				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
34	Versatile, water and hills. Tidy.	Not tidy. Not clean and nice.	Pollution	Tidy up. Development? leave as they are.
35	Looks good. Water. Animals.	Plain. Dirty (#3).	Building houses on them.	Not really.
37	Good land for farming and for people to live.	Swampy. Muddy. Can't use.	Heavy development. Causes soil erosion.	To cover the swamp with fill.

Hills Factor 1				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
01	Truly natural. Wild natural, untouched.		Vegetation cover. Less native. Less cover/density.	
04	Natural beauty. Presence of water with tree right down to it. Undisturbed. None (trees?) actually fitted, purely naturally.	Farm land. Trees have no authentic appeal. Dead, dull looking, lack of water. Don't look accessible. Presence of barriers, fences and hedgerows.	Development OK but appropriate. Industrial not OK.	Blocks of big trees (native). Access and infrastructure. Install some order to the landscape, no paths currently.
07	Water/land interface. Native bush.		Clearance of vegetation. Structures on significant ridgeline.	Revegetation. Subtle development. Well screened. Not to large in terms of dwelling size.
10	Naturalness. Untouched. Don't seem man made. Pure. The real NZ before it was touched. Green and water. Serene and magical.		Removal of trees. Housing. Putting in docks (waterways, boats)	No development.
13	Unspoiled. Water. Trees. Vistas (large)		Removal of trees, slips, houses, fires	Protect the trees that are there. Tourist facilities that don't impact heavily on the environment or landscape.
27	Natural looking. Diversity	Housing in rural area too dense.	Too dense housing	Sympathetic

	of natural elements. Combination of natural elements.	Concrete.	development. Small lifestyle block. Commercial and industrial. Forestry (pine).	placement and design of housing. Avoid urban roading, patterns and building in rural area.
29	Least human contact, pure bush, no clearing, fence roads, houses. Like 2-300 years ago. Pristine.		Concrete! – ie. Removing trees, green.	
31	Near the sea. No human elements eg. Houses. Can "smell" the landscape. Native trees.	Cultured. Presence of houses. Shows wealth is palatial compared to family home.	Boats. Housing. Pine Plantations. Development ancillary to housing OK – already compromised.	
37	Green. Rugged hills. Native bush. Open vistas. Sea views.	Brown. Development. To much development.	Cutting down trees. Obstructing sea views with buildings. Pollution.	Maybe to make green growing trees. Couple of holiday houses. Walkways.

Hills Factor 2				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
06	Overall vista. Presence of sea. Complex lighting.	Cluttered looking with trees and houses.	Commercial development. Any residential.	
16	Clean water. Appreciate farms and livestock. Nice countryside. Plenty of trees. Combination of hill forest and water elements,	Man made structures. Brown and dull. Crops not yet grown.	Remove vegetation. Pollute water. No houses.	Less messy trees, provide ordered planting. Get away from monocultural crops which leave areas barren looking all at once.
18	Presence of water and its contrast with the land. Contrast of elements in each photo. Well vegetated with trees. Distinctive ridgeline/landform. Undisturbed.	Dull and brown. Grass is dying. Signs of human intervention.	No development.	Replanting of trees (native).
19	Sea in background (#27). Trees (#19). Contrast of landscapes (#12).	Scrappy. Untidy. Not well looked after by owner.	Built up a lot. Leave how they are.	Cleaned up with nice trees planted.
21	Pasture, water and forestry make a nice ecological balance. Retention of trees and pasture.	Heavy residential for a rural area (#3). A lot of weed and scrub that looks untidy and messy.	To further subdivide with residential development. Lots of treescape features.	Planting of trees in steep gullies or areas of erosion. Better pasture management. No factories. Could be sympathetically developed with low

				density rural/urban development.
24	Lack of houses. Native bush. Coastal element. Natural landform of hills. Natural	Scraggy bush. Housing. Modified by humans. Forestry unattractive. Man made structures on skyline.	Large scale earthworks. Forestry. Laws. Vegetation removal. Structures in water. Pylon/masts. Intensive residential (3 or 4 houses). Roading. Intensive farming.	Screening of houses with vegetation. Retain bush – remove exotics. Limit residential development especially skyline.
32	Smooth contour and vegetation. Land to sea contrast. Distinctive. Presence of water. Rolling pleasing.		Bulky development. Breaking pattern.	

Hills Factor 3				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
02	Diversity of elements (water ecosystems, etc.). Obvious ecosystem. Land is wooded to waterline. No obvious erosion. Wooded backdrop. Familiar. Trees preserved. Ridgeline has been preserved.		Any removal of ground cover, particularly near waterway. Intrusion of pasture in wooded area.	
15	Native bush. Lots of trees. Close to way it would have been originally. Space for development in terms of food source etc. Need bush. Diversity, not barren. Humans in harmony not overtaking		Spray, insecticide. Opossum. Dams. Industrialsation. Farm run off. Waste. Removal/felling of trees	Some completely natural area. No development in untouched areas. (there should be a similar survey on the apartment block – and ideas for limits etc).
20	Pure. Middle of nowhere. Countryside. Bush/country. Relaxing. Water view.	Scruffy looking.	Over population.	Remove dead wood. Not much really.
22	No man made structures. Natural vegetation (native). Nice vista combination of elements. Looks well managed. Steeper country looks better. Forested. Interesting patterns.	Barren bare dirt. Unkempt, scruffy – little care. Weeds- gorse – ugly. Not well managed.	Man made structures. Marine farms. Denuding of vegetation particularly. Steep land and river valleys. Noxious pests. Unnecessary clearing for development, man made	Planting of clumps preferably evergreens or natives particularly riparian. Reduce monoculture appearance. More permanent vegetation.

	Sympathetic housing. Presence of water.		patterns. Obstructing vistas. Loss of coastal vegetation.	Allow regeneration.
23	Combination of ,bush, water and hills. Most natural. Water important. Presence of bush frames vista. Ruggedness, interesting ridgeline (little erosion). Presence of trees not necessarily natives. Pastoral landscape.	Modification. Bland nothingness. Pine trees! Bare green nothing to break up vista.	Removal of vegetation. Obtrusive housing. Dominance of man made structures. Roads.	Planting of trees. Screening of development with trees.
28	Bush clad hills, and sea combination and contrast with pasture (modest). Hills, sea, bush. Good mixture.	Pines not natural.	Tourist Hotel. Cable cars. Motorway. Felling of bush.	
38	Native bush. Open view. Ocean view. Hills. Natural	Development. Clear land. Farm (and man made forest)	Plant forestry. Build houses	Replant native trees. Tracks for people to walk through so they can understand why it should be preserved.

Combined Factor 1				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
04	Natural. No influence of man. Rugged beauty. Combination of bush and water.	Lack of trees. "no trees – man is dead". Ecosystem crumbling. No thought for environmental systems. Development to intense. Squares – not flowing like nature. Artificial.	Removal of vegetation. Man made disasters (nuclear, oil slicks). Development OK but not degrade ecosystems.	Habitat belts hedgerows. Improve soil structure, organic. Get rid of some cows.
17	Presence of water/beaches. Beautiful native bush. Little if any housing. Isolation. Cleanliness. Untouched.	Would not like to be there. All worked looking and artificial. Dirtier looking.	No housing and road development. No commercial development. To be left untouched.	Planting of native trees (development does have to occur in some places).
19	No sign of civilisation. Untouched. No man made structures.	The more sign of human impact the lower the photo.	Any sign of human pampering. Native vegetation, removal of man made structures.	Allow native regeneration. Remove or hide buildings behind natural buffers.
23	Presence of water and beaches. Lack of people or signs of people. Feeling of solitude. Colour contrast. Texture contrast.	Been modified, fences, houses. Pine plantation. Not distinctive. Nondescript.	Any development.	All areas have some value.

	Naturalness. Undisturbed.			
25	Sea. Combination of vegetation, rocks and sea.		Housing to close. Sea activities (should be careful).	Additional vegetation. Maybe very basic tracks that blend in.
28	Appearance of being untouched by human. No people in it. Natural. Represents New Zealand. Ecological value. Pristine.	Commerce and people. Touched by people.	Commercialisation. Residential development. Pollution (oil spill etc). Industrial pollution ie. (#18).	Nothing really.
44	Relationship between coastal marine land and water – natural transition. Pleasant water setting. Dynamic landscape with water shots – tidal weather.	Obviously modified, not natural. Obtrusive development in some areas.	Degradation of water and vegetation. Non sympathetic marine development. Some sympathetic development ore intervention is not detractive.	
49	Most natural and unmodified. Representative of pre-human New Zealand, important to retain. Water is very important visually. Spiritual, connected to life. Sense of place, especially Auckland. Recreation.	Highly modified landscape. Water polluted. Scale of development. Agriculture equally bad as structures. Drainage of wetlands.	Man made structures. Boat ramps, wharves. Commercial development, houses. Changing from indigenous to exotics. Roads and power lines.	

	Fishing. Contrast appears obvious.			
52	Distinctive landform, typical of New Zealand coast. Attractive to look at. Lack of human modification.	Most modified.	Any housing. Any development. Annoying combination of houses and bush.	Clustered development.
55	Presence of water. Drama. Rarity, unusual. Isolation. Ecology. Calendar stuff – colour of water. Trees right down to water. Peaceful with elements of drama.	Monoculture of cropping or forestry. Bleakness. No trees. Human modification has degraded landscape. Lacks interest. Unnatural coastline.	Too much human intervention. Loss of coastal vegetation. Silting leads to mangroves. Built structures in coastal areas (small jetties are OK). Planting unsuitable trees (Norfolk pines, Phoenix palms).	Planting of trees, Houses back form coastline. No monocultures or intensive horticulture. Sympathetic buildings.
56	Wilderness, natural beauty. Typical of New Zealand is combination of sea coast all unspoilt. Clean water. No rubbish. Coastal. Interesting. Connotation of holidays and happy memories.	Industrial tidal interface. Highly modified. Man made structures. Lack of access even perception of it, not inviting or welcoming.	Clearance of vegetation. Non sympathetic development. Rubbish. Exotic forestry. Man made structures. Marinas.	Plant suitable coastal species. Open access to public. Need some areas of development.
58	Natural water bodies. Mix of vegetation.	Extent of modification. Narrow range of land uses.	Significant building. Small scale dotted through	Introduce predominant native vegetation.

	Dramatic landforms. Lack of modification. Broad open vistas.	Lack of native vegetation.	is OK. Extractive industries. Large scale aquaculture. Removal of native vegetation. Modification of water's edge. Large scale infrastructure.	Mixing land uses.

Combined Factor 2				
Subject No.	**Truly outstanding**	**Least outstanding**	**Degrade**	**Improve**
02	Combination of element. Not overdone with detail. Presence of trees. Nature undisturbed.	Boring. Too much development.	Commercial and industrial development. All development.	Break up monotony.
03	Tranquil. Very limited sign of residential development. Natural farmland (with bush). Undisturbed.	Mangrove swamp looks rotten. Not natural. Houses next to beach. Invades on beach experience. Suburbia. Too much development.	Residential development, industrial, commercial development. A couple of houses OK	Add vibrancy to beachfront. Public access. Planting of trees.
06 .	Natural look. Combination of land and water. Peaceful to the mind. Great vistas	Messy bush. Mudflats and sand. Dull looking. Messy beaches.	Residential development. Vegetation removal. Litter, pollution. Resorts etc.	Cleaning beaches. Planting more trees.
14	Very still, growing, nice		Built things – houses,	Clean up stones or

	scenery.		sheds, factory work, wharf	sand, flatten area.
15	Clean, clear, nice water. Combination of water and trees. Place that would be fun to live. Places for recreation. Safe places for recreation. Good wildlife spots. Good access.	Lack of trees. Not so nice for recreation (swimming). Houses.	Deforestation. Slips. Pollution of water by any measure. Rubbish. No development beyond rural. Some structures OK.	Planting of trees for shade and to prevent slips.
42	Peaceful. Native vegetation. Boats in tranquil setting. Natural state. Active landscape. Combination of landscape elements. Animals. Presence of water. Ruggedness of bush.	Industrial development next to water. Low tide appearance of mudflats. Power lines. Poorly maintained (nothing breaking it up). Unsympathetic coastal development. Dead vegetation in 2 (foreground).	Industrial development on water. Scouring land with not vegetation. Power lines. Loss of vegetation. Inappropriate development.	Services underground. Planting of trees. Clustered development. Intensive industrial development in low quality landscapes. Maintain public access to beaches.
63	Versatile. Sea view. Green. Natural.	Power lines. Can't walk around it (18). Too many stones.	Power lines. Rubbish.	Nothing much

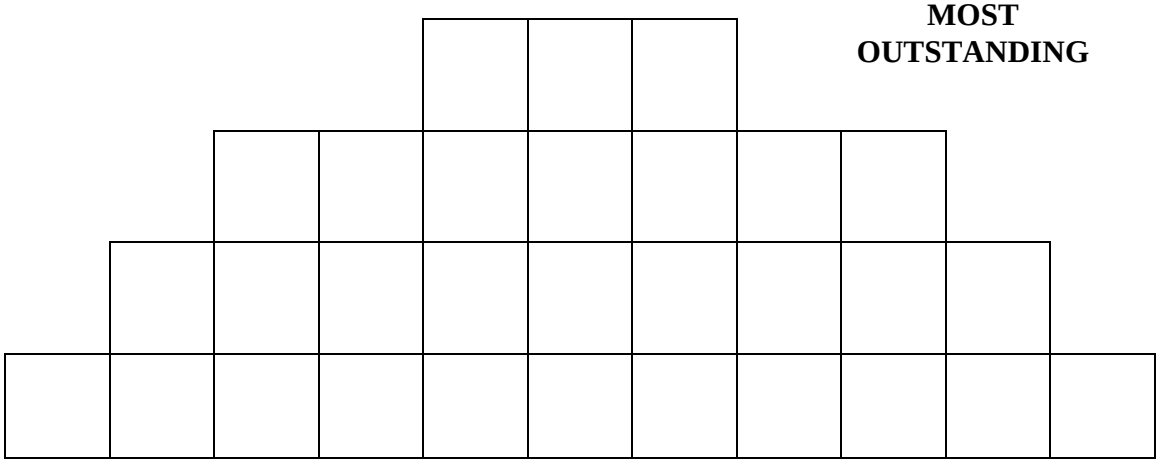
Appendix 2
Q Sort Recording Sheet

ARC Landscape Study

Subject No.:_____ Date:_____ Location:_____

Coast		Estuary		Hill		Lowland		Combined	

Please order the photographs from those which represent the <u>most outstanding</u> natural landscapes to those that least fit this description



Please identify those landscapes which you regard as truly outstanding. (Choose as many or as few as you like).

What are the characteristics / qualities that make these landscapes truly outstanding?

What changes or modifications would degrade these outstanding landscapes?

- **RESPONDENT'S DETAILS**

Please could you provide the following information:

- Gender — Male ☐ Female ☐
- Age — Under 20 ☐ 20-30 ☐ 30-40 ☐ 40-50 ☐ 50-60 ☐ Over 60 ☐
- Ethnicity — European NZ ☐ Maori ☐ Polynesian ☐ Asian ☐ Other ☐
- Occupation: _____
- Where Do You Live? _____ (Suburb/Town/Area)
- How Long Have You Lived in the Auckland Region? _____

- **NOTE:**
  - This information will only be used for Analysis.
  - You will not be identified individually.

- **Purpose**

The purpose of the exercise is to identify the outstanding natural landscapes of the Auckland Region.

Outstanding natural landscapes should be reasonably self apparent and reflect values held by the community at large.

Appendix 3
Factors by Ethnicity for each Landform Qsort

	Factor					
Coastal	**1**	**2**	**3**	**-3**	**NL**	**Total**
European	19	12			3	34
Maori	1	2	1			4
Polynesian	0	1	0	2	1	4
Asian	2	2	1	0	0	5
Other	0	0				0
Total	22	17	2	2	4	47
Estuary						
European	14	10				24
Maori	1	3				4
Polynesian	1	2			1	4
Asian	3	1				4
Other	2	1				3
Total	21	17			1	39
Lowlands						
European	21	2	0		1	24
Maori	1	2	1			4
Polynesian	1	1	2			4
Asian	0	4	0			4
Other	2	1	0			3
Total	25	10	3		1	39
Hills						
European	9	7	8		3	27
Maori	3	1	1			5
Polynesian	1	1	0		1	3
Asian	1	2	1			4
Other	0	0	0			0
Total	14	11	10		4	39
Combined						
European	34	9			1	44
Maori	4	1			1	6
Polynesian	1	3				4
Asian	0	5				5
Other	3	3				6
Total	42	21			2	65

Appendix 4
Locations of Photographs

COMBINED				
Code	**Location**	**LT**	**OT**	**A**
C1	Paparata Hunua Valley	Dairy/Pasture/Hedgerows	2.55 pm	60 mm
C2	Morley Rd	Totara and Kahikatea in horticultural field with hedgerows	3.30 pm	50 mm
C3	Heads Road	Deep dune valley system	2.55 pm	28 mm
C4	Omaha Beach	Pastoral, semi bush clad coastal headland and beach (East Coast)	10.40 am	35 mm
C5	Hamilton's Gap	Sandstone and mature dune system. Black sand, West Coast beach	4 pm	50 mm 28 mm
C6	Okura River	Estuarine/mangrove bush. Sandstone rock shelving.	2.35 pm	40 mm
C7	Whatipu Road	Ranges and pasture harbour	3.10 pm	65 mm
C8	Burnside Rd (near Ardmore)	Kahikatea stand in pasture	4.30 pm	80 mm
C9	Waikopi River/east	Salt marsh / Rural subdivision	10.50 am	40 mm
C10	Maraetai Beach	Peri-urban fringe with pine plantation and pasture to the shore. East Coast beach	10.10 am	60 mm
C11	McNol Rd near Clevedon	Eucalyptus and pine plantation	5.15 pm	35 mm
C12	Milford Beach – eastwards	Urban, coastal beach	8.30 am	28-50 mm
C13	Queens Wharf	Inner City (urban) harbour edge	12.15-12.45 pm	35 mm
C14	Muriwai Beach (south)	Dune system and ecology. West Coast black sand beach	9.05 am	50 mm
C15	Awhitu Regional Park	Harbour beach and headland – bushclad stratafied sandstone	3.50 pm	40 mm
C16	Huia Dam	Inland water body and bush	2.45 pm	50 mm
C17	Bethells Road	Bush residential subdivision	3.50 pm	40 mm
C18	Manukau Harbour	Harbour/estuarine industrial / on volcanic outcrops	4.00 pm	80 mm
C19	Awhitu Rd	Massive dune system and lake	11.35 am	65 mm
C20	Ramarama	Horticulture	10.45 am	40 mm
C21	Rosewood Crescent (off Linwood)	Equestrian subdivision	8.30 am	28 mm
C22	Journeys End Rd	Pasture (open) in dune topology	1.50 pm	80 mm
C23	Te Arai Point Rd	Remains of native bush, pine, pasture	3.10 pm	80 mm
C24	Leigh Rd	Both pastoral and semi clad coastal headlands	12.10 pm	60 mm

COMBINED				
Code	**Location**	**LT**	**OT**	**A**
C25	Raukura Point	Coastal headlands, bush clad and small bays – East Coast	11 am	28 mm
C26	Awhitu Rd	Climactic wetland	9.30 am	28 mm
C27	Wenderholm Regional Park	Bush clad, prominent coastal headland	9.50 am	40 mm
C28	Linwood Road	Equestrian and horticultural interface	9 am	28 mm
C29	Waihihi Bay	Peri-urban grassed east coast stone beach	12 noon	28 mm
C30	Wharf Rd, Port Albert	Estuarine/pasture	2.40 pm	80 mm

HILL COUNTRY AND RANGES				
Code	**Location**	**LT**	**OT**	**A**
H1	McNol Rd near Clevedon	Eucalyptus and Pine Plantation	5.15 pm	35 mm
H2	Huia Dam	Inland water body and bush	2.45 pm	50 mm
H3	Bethells Rd	Bush residential subdivision	3.50 pm	40 mm
H4	Rosewood Cres (off Linwood)	Equestrian subdivision	8.30 am	28 mm
H5	Pakiri Rd	Denuded of native cover	1.15 pm	50 mm
H6	Bombay cnr of Mill Rd	Horticultural	2.45 pm	60 mm
H7	Trig Rd	Open pasture, manuka bush, pine plantation on peninsula	11.45 am	70 mm
H8	Beaver Rd	Intensive mix of rural residential. Shelter belt, market gardening, native remains	12.35 pm	80 mm
H9	Vaughans Rd	Peri-urban bush gully	9.45 am	60 mm
H10	Mangawhai Rd	Bush and pasture, pine mix	11.30 am	80 mm
H11	Sharps Rd (Snells/Sandspit)	Pines in Pasture	9.05 am	40 mm
H12	Waiuku Rd	Horticulture pasture interface	3.05 pm	60 mm
H13	Paparata Hunua Valley	Dairy / pasture / hedgerows	2.55 pm	60 mm
H14	Heads Road	Deep dune valley system	2.55 pm	28 mm
H15	Whatipu Road	Ranges and pasture harbour	3.10 pm	65 mm
H16	Te Arai Pt Rd	Remains of native bush, pine, pasture	3.10 pm	80 mm
H17	Awhitu Rd	Native mixed remnant bush in paddock / pasture		
H18	Lone Kauri Rd	Bush and pasture	11.30 am	80 mm
H19	Route 1 south of Thompson Rd	Modified formal pasture	9.30 am	55 mm
H20	East Rd (Snells Beach)	Regeneration of bush from pasture	3.30 pm	35 mm
H21	Kohekohe Rd	Farm in dune scape with dune exposed in backdrop	11.35 am	65 mm
H22	Vaughan Rd	Rural subdivision	10 am	40 mm
H23	Awhitu Rd	Dune topography, open pasture with stands of exotic and native	9.30 am	80 mm
H24	Ararimu Rd, Hunua	Hill country patchwork landuse	3.30 pm	60 mm
H25	Forest Hill Rd	Orchards and fines / urban	1.15 pm	65 mm
H26	Burt Rd	Pasture with bush	4.30 pm	70 mm
H27	Awhitu Rd to Cochrane's Gap	Gully system with native remnants	11 am	60 mm
H28	Scenic Drive	Ranges	1.40 pm	80 mm
H29	Duck Creek	Exotics and pasture, shelter belts / pine plantation backdrop	11.15 am	60 mm
H30	Heads Road	Deep valley dune system	3.05 pm	28 mm

COASTAL				
Code	**Location**	**LT**	**OT**	**A**
B1	Army Bay (Whangaparaoa)	Sandstone coastal semi bush clad headland and beach	4.35 pm	80 mm
B2	Snells Beach	Peri-urban coastal bush clad headland and beach	1.40 pm	45 mm
B3	Tawharanui Regional Park	Pastoral, semi bush clad, east coast sandstone beach	2.15 pm	45 mm
B4	Maraetai Beach	Peri-urban fringe with pine plantation and pasture to the shore. East Coast beach	10 am	60 mm
B5	Muriwai Beach (south)	Dune system and ecology. West Coast black sand beach	9.05 am	50 mm
B6	Omaha Beach	Pastoral, semi bush clad coastal headland and beach (East Coast)	10.40 am	35 mm
B7	Mission Bay	Harbour urban beach / Pohutukawa	2 pm	40 mm
B8	Hamilton's Gap	Sandstone and mature dune system. Black sand West Coast beach	4 pm	28 mm
B9	Bucklands Beach	Urban beach. East coast shell	9.10 am	60 mm
B10	Matingarahi Bay	Stone beach, coastal (east) bush and pasture. Sandstone headland	11.45 am	28 mm
B11	Waiwera	Bush clad prominent coastal headland	9 am	50 mm
B12	Tawharanui Regional Park	Bushclad / pasture. Gentle sloping coastal edge	2.45 pm	60 mm
B13	Kaiaua Settlement on bay	Urban shell beach. East coast lowland	12.50 pm	28 mm
B14	Manly Beach, Whangaparaoa	Peri-urban / bushclad / pastoral coastal headland	3.20 pm	80 mm
B15	Mathesons Bay, Leigh	Coastal rock crops and shelving. Bushclad coastal headlands	1 pm	60 mm
B16	Matakana Harbour, Sandspit	Rural residential semi bush clad and exotics, headland	1.30 pm	50 mm
B17	Karekare Beach	Evolving dune system and vegetation. Granite rock cliff. West Coast black sand beach	1.55 pm	28 mm
B18	Kariotaiki Beach	Dune / Flax / Sandstone. West Coast black sand	11.15 am	45 mm
B19	Umupuia Bay	Dairy/pasture to cliff edge / rocky shell grav beach, low lying	10.10 am	28 mm

COASTAL				
Code	**Location**	**LT**	**OT**	**A**
B20	Howick Beach	Urban East Coast beach. Sandstone cliff in native and exotic mix vegetation	9.25 am	65 mm
B21	Te Haruhi Bay	Gentle sloping headland / pasture sandstone cliff edge	5.05 pm	28 mm
B22	Black Rock Beach	Urban coastal beach (volcanic)	8.05 am	38 mm
B23	Pakiri Beach	Pasture headland with remnant bush. Beach/dune system	12.05 pm	65 mm
B24	Raukura Point	Coastal headlands, bush clad and small bays – East Coast	11 am	28 mm
B25	Kawakawa Bay	Low lying shell beach with manuka clad backdrop / headland	10.45 am	28 mm
B26	Milford Beach – eastwards	Urban, coastal beach	8.30 am	28-50 mm
B27	Wenderholm Regional Park	Bush clad prominent coastal headland	9.50 am	40 mm
B28	Waihihi Bay	Peri-urban grassed east coast stone beach	12 noon	28 mm
B29	From Magazine Bay south	Sandstone and grey stone mix / pasture / Pohutukawa exotic mix. Coastal beach	12.05 pm	50 mm
B30	Mahurangi Regional Park	Rully bush clad coastal headland and beach	9.30 am	45 mm

LOWLAND				
Code	**Location**	**LT**	**OT**	**A**
L1	Whatipu	Saltmarsh / wetland	3.30 pm	60 mm
L2	Lake Kereta	Inland lake, pasture, manuka	11.30 am	28 mm
L3	South Kaipara Heads Rd	Saltmarsh / harbour	11.30 am	40 mm
L4	Hanga wetland	Wetland / bush	4.15 pm	60 mm
L5	Lake Rotoiti	Inland water lake and pasture	10.50 am	50 mm
L6	Orua Bay Rd	Lowland, kauri stand in pasture	2.30 pm	50 mm
L7	Ramarama	Horticulture	10.45 am	40 mm
L8	Burnside Rd (near Ardmore)	Kahikatea stand in pasture	4.30 pm	80 mm
L9	South Kaipara Heads	Exotic pine / manuka and wetland remains and pasture	11.10 am	40 mm
L10	Awhitu Regional Park	Fresh water wetland	2.30 pm	60 mm
L11	Pakiri Block Rd	Pasture, Kahikatea bush / shelter belt	1.55 pm	80 mm
L12	Awhitu Rd	Massive dune system and lake	11.35 am	65 mm
L13	Kaipara Coastal Highway	Saltmarsh, mangrove pasture	9.25 am	45 mm
L14	Rahukiri Rd	Lowland sand mature dune system, bushed	1.05 pm	35 mm
L15	Matakana Rd	Lowland pasture, mangrove, pine	12.30 pm	45 mm
L16	Valley Rd	Intimate rural residential mix with Kahikatea stands	1.25 pm	55 mm
L17	Linwood Rd	Equestrian and horticultural interface	9 am	25 mm
L18	Wellsford Valley Rd	Rural Residential	11.05 am	60 mm
L19	Journeys End Rd	Pasture (open) in dune topology	1.50 pm	80 mm
L20	Linwood Rd	Equestrian pasture	8.20 am	40 mm
L21	Liang Rd	Horticulture and coastal	8.35 am	28 mm
L22	Morley Rd	Totara and Kahikatea in horticultural fields with hedgerows	3.30 pm	50 mm
L23	Kaipara Coastal Highway	Lowland pasture Kahikatea stand	9.15 am	
L24	Whitford – Maraetai Rd	Lowland estuarine pasture	10.50 am	28 mm
L25	Clark Rd	Patchwork transitional landuse / coastal interface	8.40 am	80 mm
L26	Muriwai Rd	Gentle pasture, pine and manuka	10.15 am	65 mm
L27	Liang Rd	Pasture and coastal interface	8.35 am	50 mm
L28	Kaipara Coastal Highway	Lowland pasture, remnant wetland	10.30 am	80 mm
L29	Route 16 to Helensville	Glasshouse in rural landscape	10.45 am	28 mm

LOWLAND				
Code	**Location**	**LT**	**OT**	**A**
L30	Awhitu Rd	Climactic wetland	9.30 am	28 mm

HARBOUR / ESTUARINE				
Code	**Location**	**LT**	**OT**	**A**
E1	Okura Estuary	Estuarine / bush to water's edge	8.50 am	38 mm
E2	Mangere Bridge boat ramp	Urban estuary in lave flow geological landscape	9.50 am	35 mm
E3	Otahuhu Creek South	Urban estuary	10.55 am	35 mm
E4	Big Bay (south)	Sandstone cliffs / pasture. Baches and Pohutukawa and Pine mix	10.25 am	40 mm
E5	Te Kawau Point Beach	Harbour beach and vegetated headland	12.30 pm	40 mm
E6	Huia Dam	Inland water body and bush	2.45 pm	50 mm
E7	Manukau Harbour	Harbour/estuarine. Industrial / on volcanic outcrops	4.00 pm	80 mm
E8	Beachlands Marina	Coastal shell beach. Exotic/mangrove mix	11.05 am	28 mm
E9	Okura River	Estuarine/mangrove bush. Sandstone rock shelving	2.35 pm	40 mm
E10	Herne Bay	Urban harbour. Coastal edge	3 pm	28 mm
E11	Te Atatu Peninsula	Urban saltmarsh wetland	3.50 pm	28 mm
E12	Waikopi River / east	Saltmarsh / Rural subdivision	10.50 am	40 mm
E13	Homestead Bay Scotts Landing	Islands in harbour / coastal / bush clad and pasture	12.45 pm	55 mm
E14	Papakura Bridge	River/estuary	5.35 pm	40 mm
E15	Waikiri Creek	Shoreline mangrove, manuka on sandspit	12.55 pm	50 mm
E16	Wharf Rd, Port Albert	Estuarine/pasture	2.40 pm	80 mm
E17	Waiwera River	Estuarine, mangrove bush to water	8.45 am	35 mm
E18	Te Kapa Estuary	Pasture / exotics	12.45 pm	45 mm
E19	French Bay	Urban harbour beach, bushclad headland	1 pm	60 mm
E20	Te Whau Point	Urban coastal headland / native/exotic mix vegetation	3.00 pm	28 mm
E21	Papakura Bridge	River/estuary inland	8.10 am	40 mm
E22	Leigh Rd	Both pastoral and semi clad coastal headlands	12.10 pm	60 mm
E23	Orua Bay	Native and pine headland with baches	2.20 pm	28 mm
E24	Queens Wharf	Inner city (urban) harbour edge	12.15-12.45 pm	35 mm
E25	Little Huia Road	Peri-urban in ranges on harbour. Rock shelving	3.10 pm	28 mm
E26	Awhitu Regional Park	Harbour beach and headland – bushclad stratafield sandstone	3.50 pm	40 mm

HARBOUR / ESTUARINE				
Code	**Location**	**LT**	**OT**	**A**
E27	Whau River	Urban estuary / mangrove / pine	3.30 pm	28 mm
E28	Devonport Wharf / Waterfront	Urban Harbour Edge	11.30-11.45 am	28mm-40mm
E29	Milford Beach – westwards	Urban coastal beach	7.45-8 am	28-80 mm
E30	Herne Bay	Urban harbour coastal beach	3.05 pm	28 mm

Auckland Regional Landscape Assessment
for
Auckland Regional Council

Stage Three

Delineation of the Outstanding Natural Landscapes of the Region

prepared by
Boffa Miskell

In association with
Stephen Brown Environments Limited
and Lincoln University

August 2004

Executive Summary

The Stage Three process of this Regional Landscape Assessment Review Project has involved translating the factors identified through the Stage Two public preference process onto the ground to spatially define the outstanding natural landscapes of the Region (Section 6(b) RM Act 1991).

This final Stage of the project has involved in-house desktop mapping of areas considered likely to be outstanding natural landscapes using the considerable local knowledge and experience of the project team members (Stephen Brown, John Goodwin and Rachel de Lambert) using the NZMS 260 topographical maps followed by extensive ground survey, verification and delineation of boundaries in the field. The areas identified have then been transferred to digital GIS format compatible with the Auckland Regional Council's GIS database. Both hard copy and electronic versions of the maps have been provided.

The initial brief for the delineation of the outstanding natural landscapes of the Region related to the mainland area within the Auckland Regional Council's jurisdiction, the brief was subsequently extended to also cover the islands of the Hauraki Gulf from Kawau in the north to Ponui in the south and extending out to Great Barrier Island.

In total, ninety two (92) numbered areas have been identified as outstanding natural landscapes within the region. These are delineated on the attached maps and recorded on the field record sheets also attached.

Introduction

The outcome of the Stage Two public preference process is summarised in the Stage Two report (dated May 2003) as follows:

> *"Results show that there are two distinctive ways in which the public evaluates the qualities of natural landscapes in the Auckland Region. These are described in the report as 'factors' due to the method by which they were derived. The two factors are broadly consistent across the different landscapes in the region and account for a very large proportion of the responses. In the case of hill country landscapes, the evaluation is slightly more complex. Based on these factors, the report identifies the types of landscape that respondents describe as truly outstanding.*
>
> *The first factor characterises outstanding natural landscapes in terms of 'wild nature'. This factor values natural landscape most highly when there is no evidence of human presence, modification or management. The landscapes that are selected as 'truly outstanding' are those which are closest to the pristine environments in the land types under consideration.*
>
> *The second factor also values many pristine environments, but in addition evaluates some types of modified environment as being outstanding natural landscapes. This represents a 'cultured nature' position in which the presence of humans undertaking recreational activity, or some forms of low intensity production within a landscape, is considered to be consistent with it being an outstanding natural landscape. The main indicator of this factor is that landscapes which include a picturesque mix of bush and extensive pastoral agriculture on hills and lowlands are highly valued, whilst relatively unmodified salt marsh and wetland are less highly valued (as being unattractive and somewhat inaccessible). Hence for Factor 2 'cultured nature', not all pristine environments are recognised as having potential to be an outstanding natural landscape, whilst some partially modified landscapes are regarded as truly outstanding.*
>
> *When the photographs identified as truly outstanding by each factor in each type of landscape are combined, an overall pattern of public response can be identified, with a reasonably high degree of consensus about the characteristics of landscapes that warrant the designation of being 'outstanding natural landscapes'. They include pristine and relatively unmodified coastal environments, estuaries and harbours; unmodified wetlands with standing water;*

lowland bush; and picturesque or open hill country that includes a significant proportion of bush or bush remnants, with minimal presence of human artefacts or buildings."

The Stage Three objective was then to translate the factors identified through the public preference process spatially across the region's landscape. The summary cards for the factors in each of the four landscape types - coastal, harbour and estuarine, hill country and lowland, as well as the combined set of images - were used to assist in this physical mapping process. The summary card images are attached (refer Appendix 1).

Methodology

The methodology adopted involved a first phase of desktop mapping direct onto the 1:50,000 NZMS 260 series topographical maps in the office using the visual prompts of the outstanding natural landscape factor summary sheets and the considerable local knowledge of the region's landscape held by project team members Stephen Brown, John Goodwin and Rachel de Lambert who between them have some 50 years detailed professional working knowledge of the region's landscape.

Having undertaken this first cut mapping exercise, an extensive field checking process was undertaken with Stephen Brown and Rachel de Lambert driving roads within the region over some seven days to identify, confirm and verify the location and boundaries of the outstanding natural landscapes consistent with the identified factors. The outstanding natural landscape factor summary sheets were kept on hand as a reference and reminder of the desired attributes. In addition, following the extension of the brief to include the islands of the Hauraki Gulf these were travelled by road in the case of Waiheke and Great Barrier islands and observed from the sea in relation to all of the islands of the inner Gulf.

A standard record sheet template was prepared in advance of the first field checking and completed in the field for each outstanding natural landscape delineated (summary attached, refer Appendix II).

During the field survey some areas identified as potentially possessing the factor attributes at the desktop delineation phase were excluded as outstanding natural landscapes. This exclusion occurred for a number of reasons but most frequently related to the lack of coherence in the pattern of land cover and land use. In addition, some areas not initially identified in the desktop assessment were identified in the field and included on the final field maps.

During the field assessment, some areas were also identified as comprising the right range of factor attributes but were considered too small in physical area terms to be included within the regional assessment. Such areas have significance at a District level but were not felt sufficiently large to contribute to the regional landscape.

In addition it was noted by the field survey team that in relation to the less modified islands of the Hauraki Gulf, such as Great Barrier, that the mapping process tended to involve the exclusion of those areas not comprising the attributes of outstanding natural landscapes whereas on the mainland and more modified and / or inhabited islands, such as Rakino and Waiheke, the delineation involved defining discrete areas of outstanding natural landscape within a wider landscape that did not display those characteristics.

Following field assessment the maps were checked by Stephen Brown and Rachel de Lambert and then converted to electronic format on GIS at which point they were checked again for accuracy of translation. This electronic mapping has been undertaken to be fully compatible with the Auckland Regional Council's (ARC) GIS database, enabling unhindered transfer of the data from Boffa Miskell to the ARC.

The Region's Outstanding Natural Landscapes

Of the ninety-two (92) outstanding natural landscapes delineated the majority, forty-one (41) are within the hill country landscape type with fifteen (15) being harbour/estuary, eleven (11) coast five (5) lowland and fourteen (14) island areas. In part this numbering is skewed by the fact that many of the "hill country" areas include areas of lowland or extend to include the adjacent harbour/estuary or coastline. It should also be noted that the island areas comprise a combination of all landscape types, they have been recorded on a separate 'islands' sheet.

The outstanding natural landscapes identified on the mainland area of the region cover some 80,000 hectares. This translates to some 16% of the mainland landmass of the region, not all of this area is in private landownership as significant areas of outstanding landscape are held as public lands.

The island areas have been left out of this analysis as they tend to skew the statistics due to the large areas of both Kawau (approx 1900ha) and Great Barrier (approx 41,000ha) that are identified as outstanding natural landscapes. Again much of these areas are held in public ownership.

Dealing again with the mainland area a comparison with the 1984 study and areas included in the Regional Policy Statement (RPS) compared to the areas identified through this updated study can be summarised as follows:

Area in Category 6 or 7 RPS:	49,000 ha
Area in Category 5 RPS:	69,000 ha
Combined Area 5, 6, 7 RPS:	118,000 ha
Area 2003/4 Outstanding Natural Landscapes:	80,000 ha
Difference 2003/4 ONL to 6 & 7 (RPS):	31,000 ha
Difference 2003/4 ONL to 5, 6 & 7 (RPS):	-38,000 ha

Note these areas do not include the outstanding natural landscapes on the islands of the Hauraki Gulf as these were not included within the original 1984 assessment.

The 2003/4 outstanding natural landscapes are mapped in the following six figures, three comprising the mainland areas and three the islands. Also mapped is the spatial comparison of the mainland RPS 5, 6 and 7 landscape sensitivity rating areas with those now identified as outstanding natural landscapes included in the 2003/4 study.

The primary differences in these areas relate to the inclusion of the "cultured nature" factor which has seen a widening of the outstanding landscapes where "*the presence of humans undertaking recreational activity, or some forms of low intensity production within a landscape, is considered to be consistent with it being an outstanding landscape… landscapes which include a picturesque mix of bush and extensive pastoral agriculture on hills and lowlands are highly valued…*" (page 6 Stage 2 report)

The inclusion of this factor explains not only the widening of the areas delineated as outstanding between the 1984 and 2003/4 studies, but also the predominance of this extension in the hill country environments of the Region.

Recommendations

The next step in the process of updating the regional landscape resource knowledge within the Auckland Region relates to the updating of the Regional Policy Statement (RPS), which currently contains the maps that related to the earlier study(s) and policy relevant to that earlier understanding. Given the public's widening perception of more managed – cultured nature – landscapes as outstanding natural landscapes, it will be necessary when incorporating the new maps into the Region's statutory documents to also prepare new policy that recognises both the 'wild nature' and 'cultured nature' perspectives held by the community in relation to outstanding natural landscapes.

The current policy that addresses the outstanding natural landscapes (those areas identified as having a landscape sensitivity rating of 6 or 7) as well as that related to the 'regionally significant landscapes' (landscape sensitivity rating 5) is set out below.

> *"6.3.4 To maintain the overall quality and diversity of character of the landscapes of the Auckland Region.*
>
> *6.4.19 Policies: Landscape*
>
> *The following policies and methods give effect to Objective 6.3-4*
>
> *1. Subdivision, use and development of land and related natural and physical resources shall be controlled so that in areas identified in Map Series 2 and 3:*
>
> *(i) the quality of outstanding landscapes (landscape rating 6 and 7) is protected by avoiding adverse effects on the character, aesthetic value and integrity of the landscape unit as a whole;*
>
> *(ii) outstanding landscapes with a sensitivity rating of 6 or 7 are protected by avoiding subdivision, use and development which cannot be visually accommodated within the landscape without adversely affecting the character, aesthetic value and integrity of the landscape unit as a whole;*
>
> *(iii) the quality of regionally significant landscapes (landscape rating 5) is protected by avoiding adverse effects on the elements, features and patterns which contribute to the quality of the landscape unit;*
>
> *(iv) regionally significant landscapes with a sensitivity rating of 5 are protected by ensuring that any subdivision, use and development can be visually accommodated within the landscape without adversely affecting the elements, features and patterns which contribute to the quality of the landscape unit.*

2. *In those rural areas not rated as being outstanding or regionally significant landscapes and in urban areas, the elements, features and patterns which contribute to the character and quality of the landscape and to its amenity value, or which help to accommodate the visual effects of subdivision, use and development, shall be protected by avoiding, remedying, or mitigating any adverse effects on them.*

3. *Subject to Policy 6.4.19-1 above, subdivision, use and development on regionally significant ridgelines shall be controlled so that there are no significant adverse effects, including cumulative effects, on the landscape quality and integrity of the ridgelines.*

4. *The views of volcanic cones, which are indicated in Map Series 4, are to be preserved, and intrusion into the defined viewing shafts by buildings or structures shall be avoided.*

5. *The use or development of land and related natural and physical resources is to be controlled so that the visibility of volcanic cones is maintained or enhanced.*

6.4.21 Reasons

…The intention of the policies is to protect the aesthetic and visual quality, character and value of the major and unique landscapes from inappropriate subdivision, use and development. Policy 6.4.19.1 does this by requiring the avoidance of adverse effects on the whole landscape unit in outstanding landscape areas. This recognises that the landscape value of these units is derived from a combination of qualities and values which together give them an outstanding rating. These qualities and values usually mean that the units are also extremely sensitive to the visual effects of use and development. In Regionally Significant Landscapes, the emphasis is on the protection of the elements, features and patterns which contribute to the quality of the landscape unit (Policy 6.4.19-1 (iii) and (iv))…

…The individual factors which contribute to the quality and sensitivity of both outstanding and regionally significant landscape vary throughout the Region, depending on the particular landscape. These factors include the presence of prominent ridgelines and slopes, the pattern of vegetation, particularly indigenous vegetation and the presence of bodies of water. Further information on this is contained in Appendix F – Landscape Evaluation Methodology."

Clearly with incorporation of the ninety two new outstanding natural landscapes as delineated through this updated landscape assessment study, it will be necessary to develop new policy that takes account of the wild nature and cultured nature views that have contributed to the identification of the Region's outstanding natural landscapes.

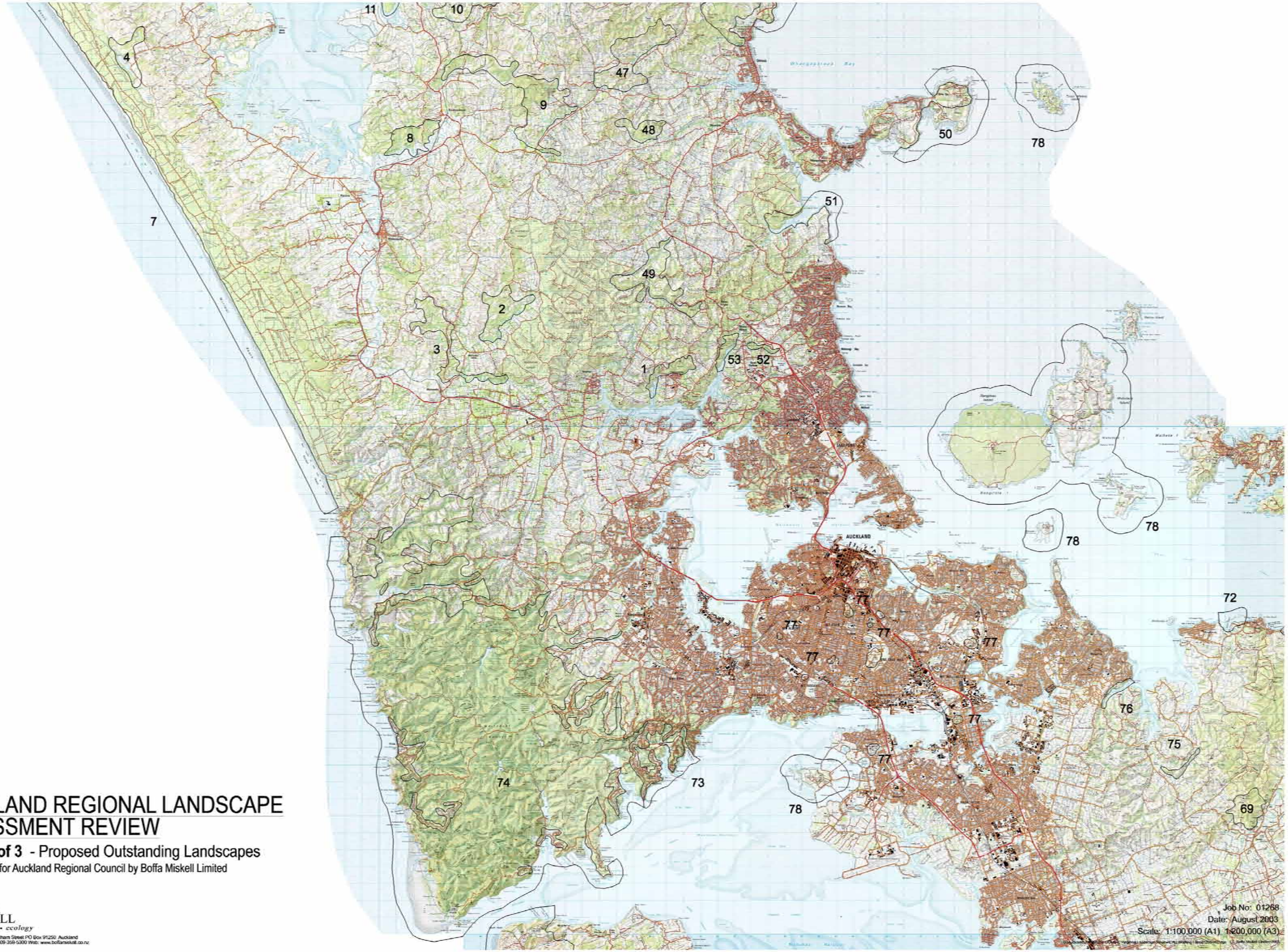
AUCKLAND REGIONAL LANDSCAPE ASSESSMENT REVIEW

Figure 1 of 3 - Proposed Outstanding Landscapes

Plan prepared for Auckland Regional Council by Boffa Miskell Limited

BOFFA MISKELL
planning • design • ecology
Level 3, IBM Building, 5 Wyndham Street PO Box 91250 Auckland
Tel: 64-09-358-2526 Fax: 64-09-358-5300 Web: www.boffamiskell.co.nz

Job No: 01268
Date: August 2003
Scale: 1:100,000 (A1) 1:200,000 (A3)



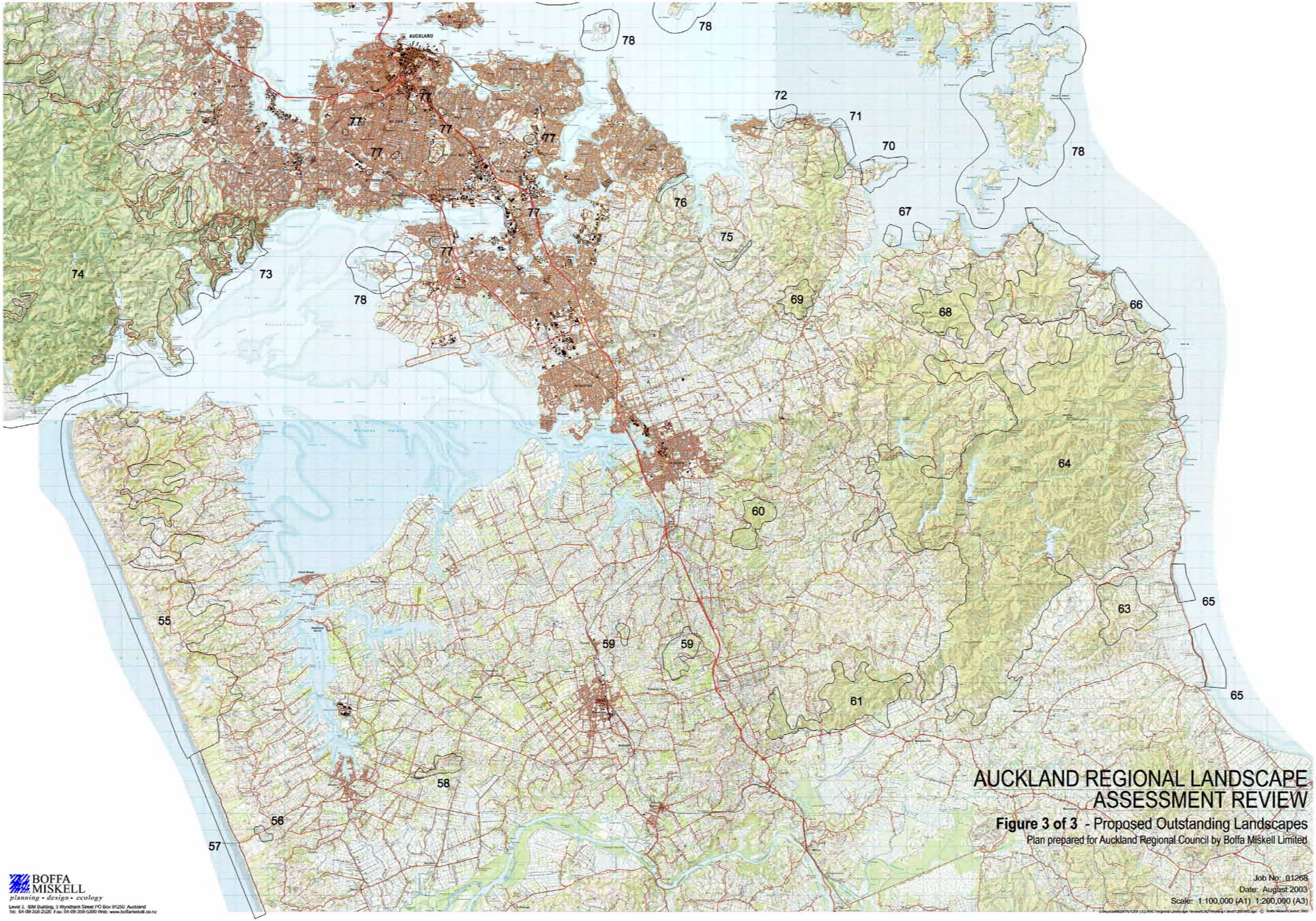
AUCKLAND REGIONAL LANDSCAPE ASSESSMENT REVIEW

Figure 2 of 3 - Proposed Outstanding Landscapes

Plan prepared for Auckland Regional Council by Boffa Miskell Limited

Job No: 01268
Date: August 2003
Scale: 1:100,000 (A1) 1:200,000 (A3)

BOFFA MISKELL
planning • design • ecology
Level 3, IBM Building, 5 Wyndham Street PO Box 91250 Auckland
Tel: 64-09-358-2526 Fax: 64-09-358-5300 Web: www.boffamiskell.co.nz



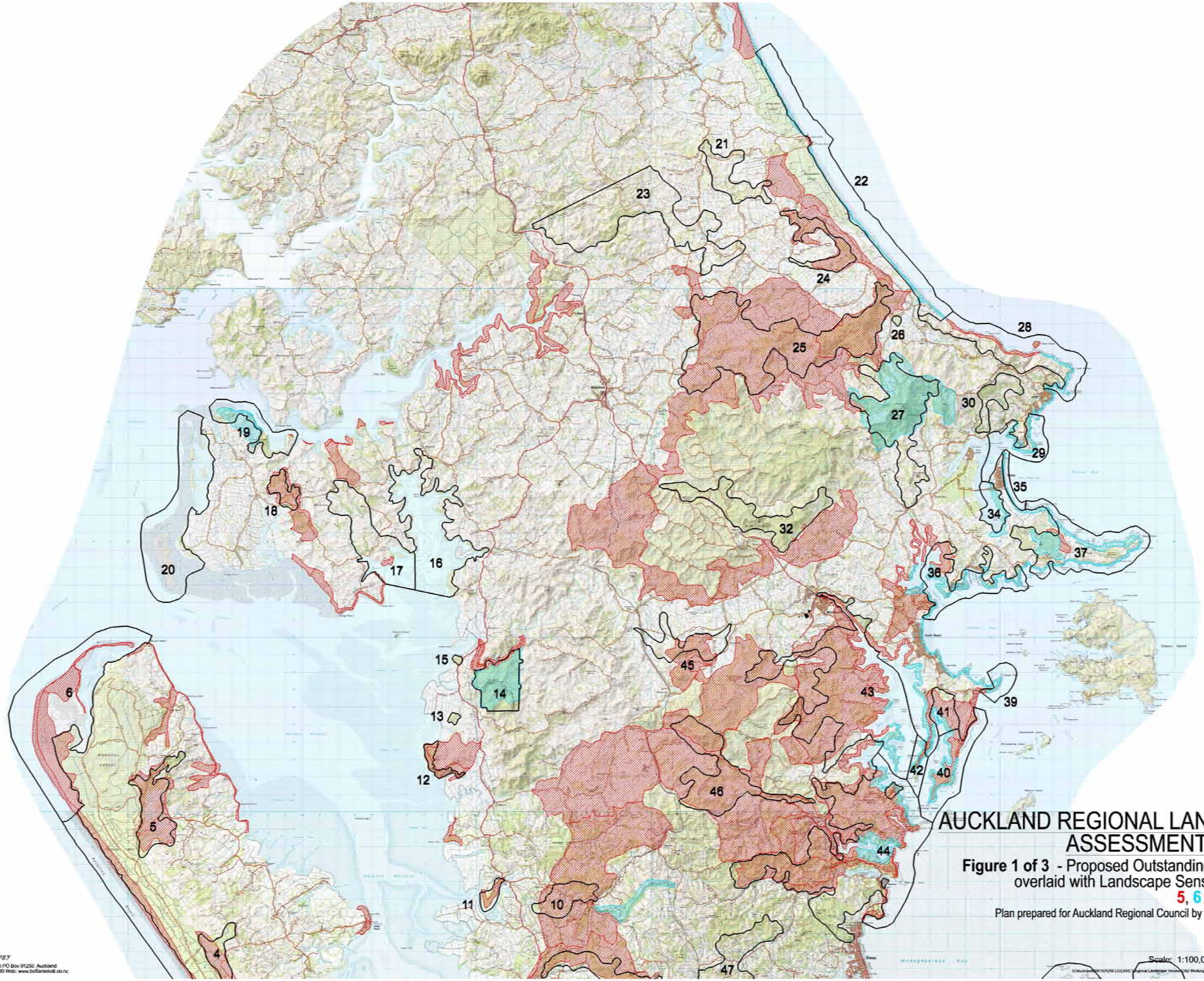
AUCKLAND REGIONAL LANDSCAPE ASSESSMENT REVIEW

Figure 3 of 3 - Proposed Outstanding Landscapes

Plan prepared for Auckland Regional Council by Boffa Miskell Limited

Job No: 01268
Date: August 2003
Scale: 1:100,000 (A1) 1:200,000 (A3)

BOFFA MISKELL
planning • design • ecology
Level 2, IBM Building, 5 Wyndham Street PO Box 91250 Auckland
Tel: 64-09-358-2526 Fax: 64-09-358-5300 Web: www.boffamiskell.co.nz



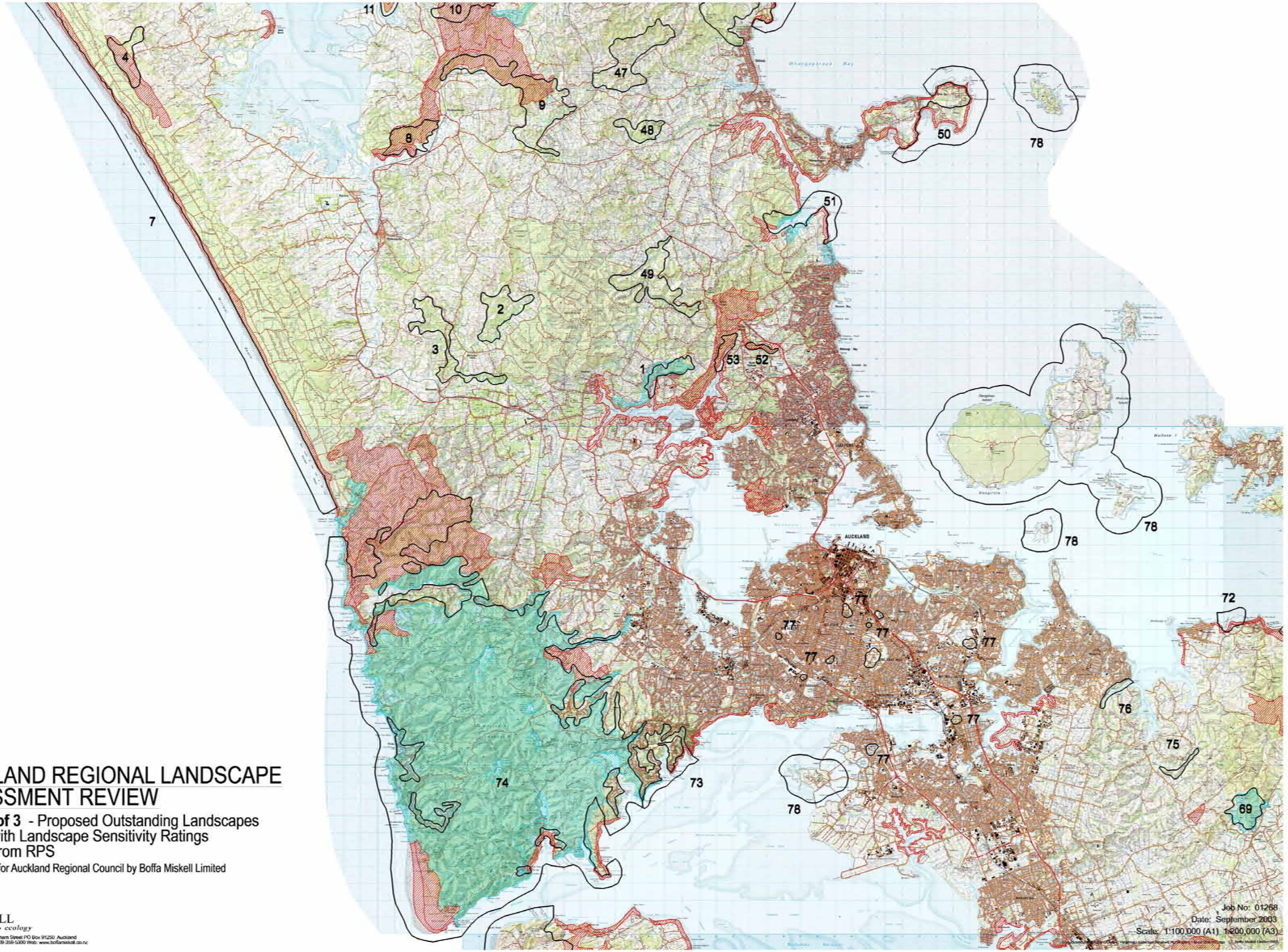
AUCKLAND REGIONAL LANDSCAPE ASSESSMENT REVIEW

Figure 1 of 3 - Proposed Outstanding Landscapes overlaid with Landscape Sensitivity Ratings 5, 6 & 7 from RPS

Plan prepared for Auckland Regional Council by Boffa Miskell Limited

Job No: 01268
Date: September 2003
Scale: 1:100,000 (A1) 1:200,000 (A3)

BOFFA MISKELL
planning • design • ecology
Level 3, IBM Building, 5 Wyndham Street PO Box 91250 Auckland
Tel: 64-09-358-2526 Fax: 64-09-358-5300 Web: www.boffamiskell.co.nz



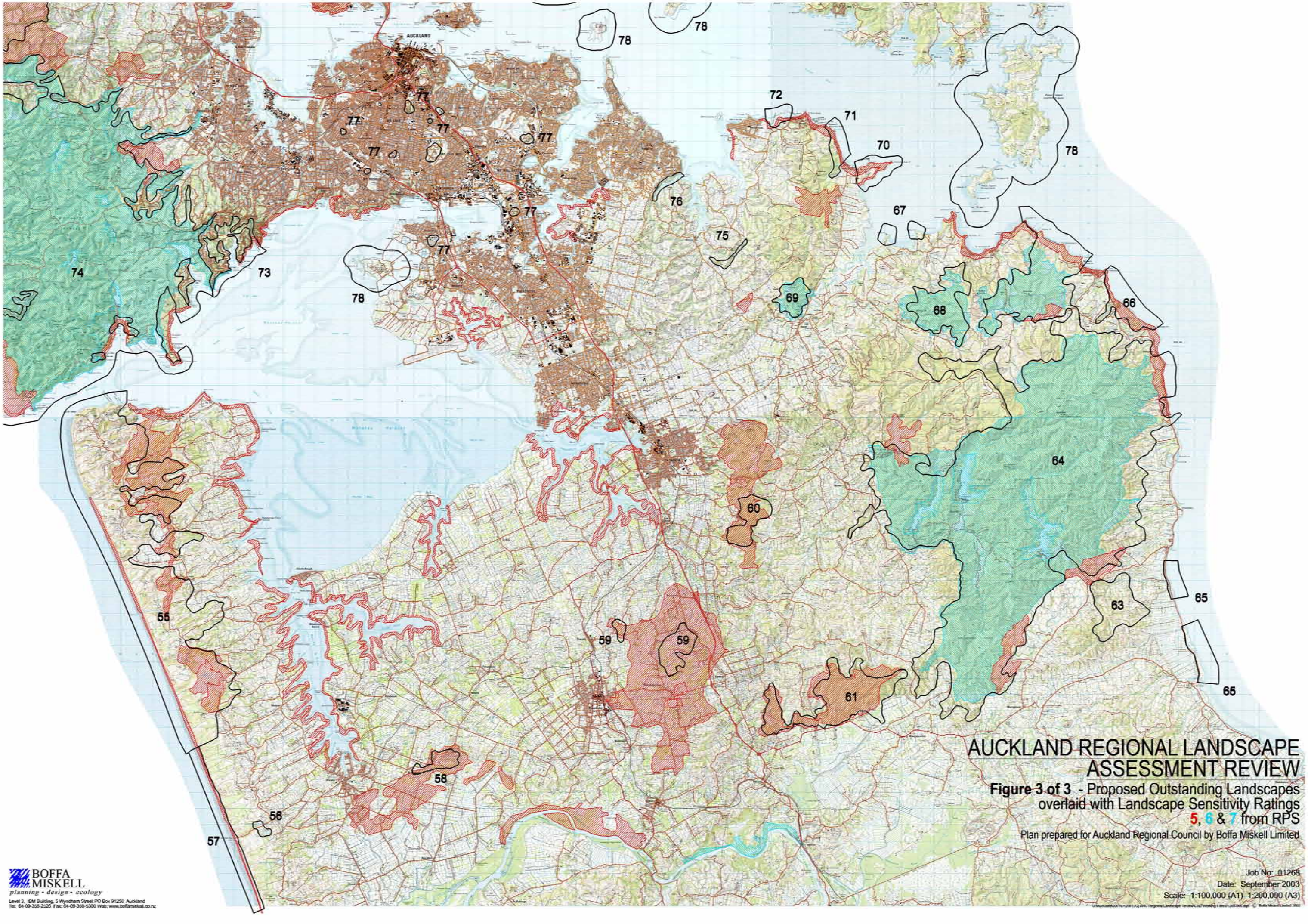
AUCKLAND REGIONAL LANDSCAPE ASSESSMENT REVIEW

Figure 2 of 3 - Proposed Outstanding Landscapes overlaid with Landscape Sensitivity Ratings **5**, **6** & **7** from RPS

Plan prepared for Auckland Regional Council by Boffa Miskell Limited

Job No: 01268
Date: September 2003
Scale: 1:100,000 (A1) 1:200,000 (A3)

BOFFA MISKELL
planning • design • ecology
Level 2, IBM Building, 5 Wyndham Street PO Box 91250 Auckland
Tel: 64-09-358-2526 Fax: 64-09-358-5300 Web: www.boffamiskell.co.nz



AUCKLAND REGIONAL LANDSCAPE ASSESSMENT REVIEW

Figure 3 of 3 - Proposed Outstanding Landscapes overlaid with Landscape Sensitivity Ratings 5, 6 & 7 from RPS

Plan prepared for Auckland Regional Council by Boffa Miskell Limited

Job No: 01268
Date: September 2003
Scale: 1:100,000 (A1) 1:200,000 (A3)

BOFFA MISKELL
planning • design • ecology
Level 3, IBM Building, 5 Wyndham Street PO Box 91250 Auckland
Tel: 64-09-358-2526 Fax: 64-09-358-5300 Web: www.boffamiskell.co.nz

Appendix I
Outstanding Landscape Factor Summary Sheets

Shared ONL between Combined Factors 1 and 2

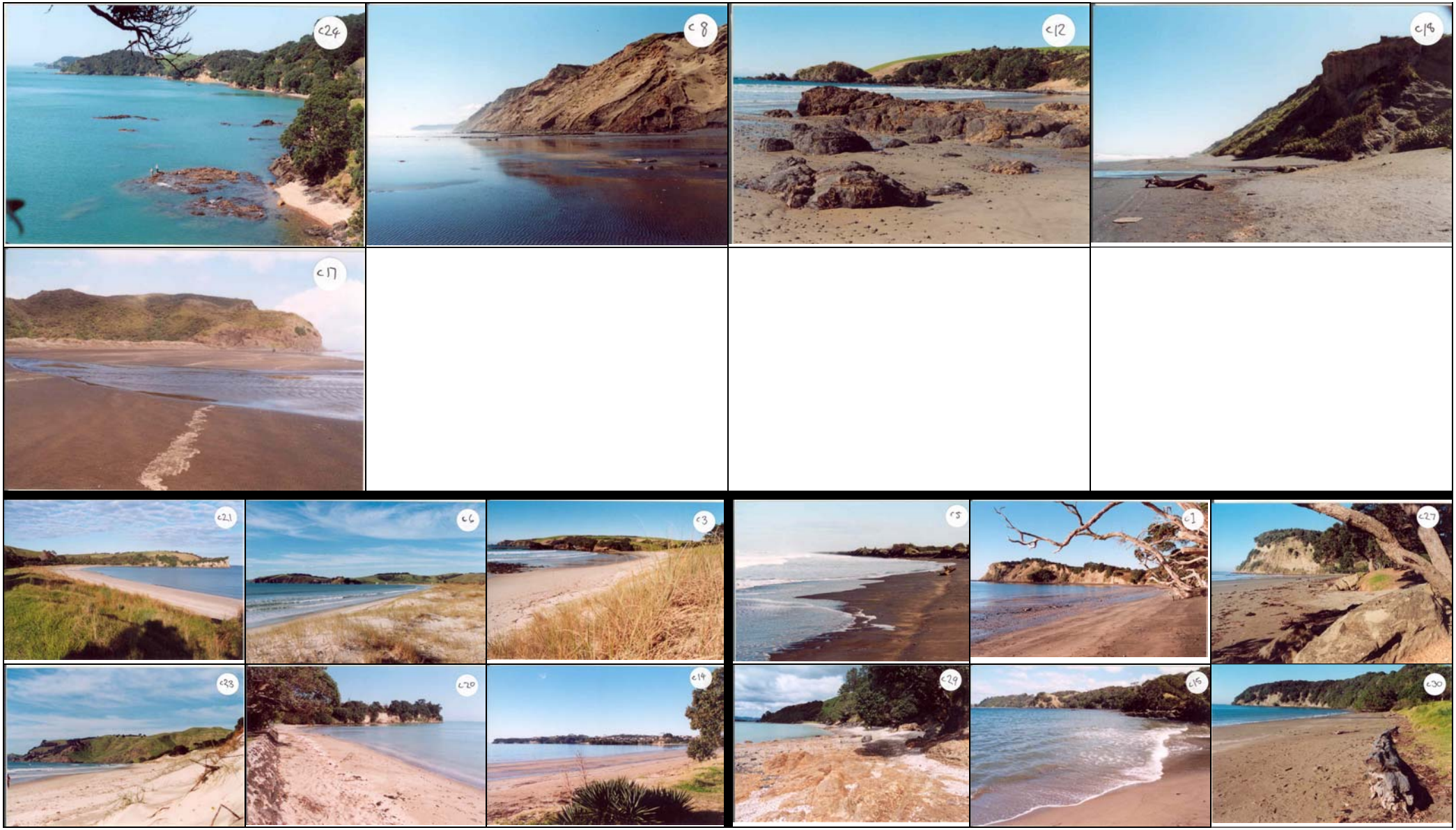
Factor 1 **Factor 2**

Shared ONL between Estuary Factors 1 and 2

Factor 1

Factor 2

Shared ONL between Coastal Factors 1 and 2



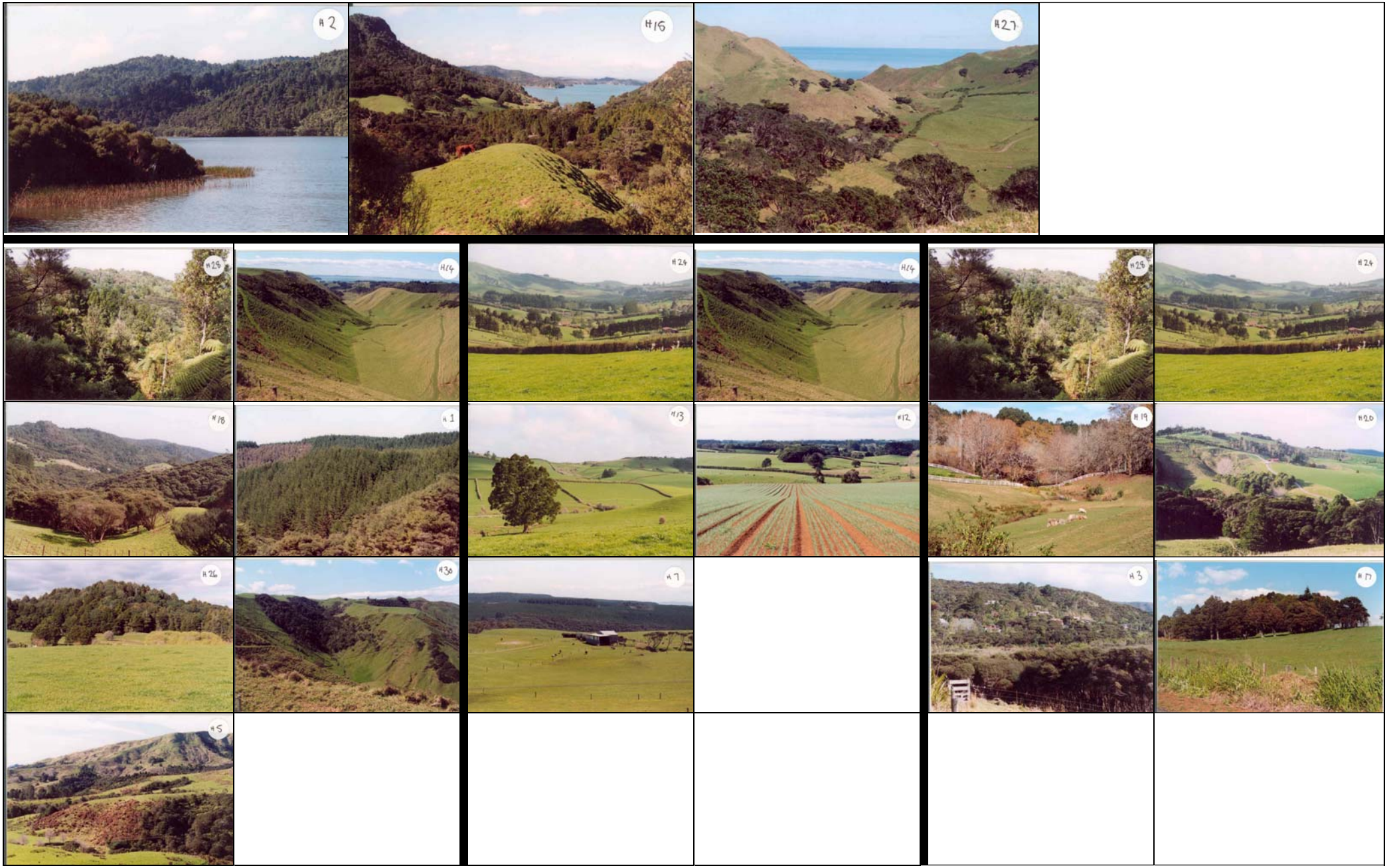
Factor 1 **Factor 2**

Shared ONL between Lowlands Factors 1 and 2

Factor 1

Factor 2

Shared ONL between Hills Factors 1, 2 and 3



Factor 1 **Factor 2** **Factor 3**

Appendix II
Outstanding Landscapes
Field Record Summary

TABLE ONE: OUTSTANDING NATURAL LANDSCAPE AREAS – SUMMARY INFORMATION

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
Rodney District (West & North West)					
2	Ararimu Valley West	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Remnant, regenerating indigenous vegetation, with some young rogue pine. Vegetation running down to stream corridor.	Retention of indigenous vegetation reinforcing topography. Maintaining low levels of built modification.
3	Taylors Rd South of Helensville	Hill Country	Relatively high relief. Significant areas of maturing vegetation in pockets. Only low levels of built modification (houses).	Slopes running down to stream corridors, with good pockets of regenerating & remnant forest (kauri). Areas of more open and developed/modified land excluded from ONL Unit.	Retention of indigenous vegetation in patterns related to underlying topography.
4	Lake Kereta	Lowland	Lake & wetland. Undeveloped margins. Significant remnant indigenous vegetation. Low levels of development. Cohesive pattern (ties together visually in relation to topography).	ONL defined by pines on coastal side and by pasture around bush remnants. Low level of residential development that is subservient, tucked into the hummocky dune landform/bush remnants.	Retention of dune lake/wetland landscape and remnant vegetation with low levels of subservient development (houses, roads, infrastructure).

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
5	Lakes Ototoa & Kuwakatai	Lowland	Lakes and wetlands. Undeveloped margins. Significant remnant indigenous vegetation. Low levels of development. Cohesive pattern.	Lakes and their context of vegetation, including regenerating indigenous forest, extends over ridgeline to inner harbour in area of Patauoa Creek. Around deer farm more exotic vegetation and higher level of development, but consistent with more modified pastoral/treed landscapes identified as outstanding.*)*	Retention of dune lake/wetland landscape and remnant vegetation with low levels of subservient development as well as more modified pastoral and vegetated landscape.
6	Papakanui Spit – Waionui Inlet	Harbour & Estuary	South Kaipara Head duneland, Papakanui sand spit and Waionui Inlet.	ONL is defined by edge of Woodhill Forest (pines) and gradual transition from major dunes into the lower profile duneland of Rangitira Beach.	Retention of remote natural duneland.
7	Rangitira Beach (North of Muriwai)	Coastal	Beach above MHWS and contiguous duneland.	Defined on landward side by pine plantation and at the coast by the transition into the long relatively straight profile of Muriwai Beach.	Retention of remote beach environment and duneland backdrop.
8	Hills north Kaukapakapa River	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Bush covered escarpment above Kaukapakapa River (tributary of Kaipara River). Remnant and regenerating indigenous vegetation. Transmission line passes through. Landscape unit defined by pines, especially in the west.	Regenerating indigenous vegetation reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
9	Kaukapakapa	Hill Country with Lowlands on south side	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Intact predominantly south facing dissected hill slopes with remnant and regenerating indigenous vegetation. Some pockets more open. Central part of unit has more pasture and development but with remnant pockets of indigenous vegetation within more pastoral landscape. Extending into escarpment and along stream margins around Waitoki.	Remnant and regenerating indigenous vegetation reinforcing topography. Pastoral landscape with remnant pockets of indigenous vegetation with high aesthetic values (cultured nature).
10	Makarau Valley, north Helensville	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Steeper south facing slopes within mature and regenerating intact cover of indigenous vegetation. Some spray clearing – pines. Coming over tops of ridge on south side of Makarau Road more open and pastoral, with stands of native remnant indigenous trees eg tötara, kahikatea, kanuka, puriri, kauri.	Remnant and regenerating indigenous vegetation reinforcing topography. Pastoral landscape with remnant pockets of indigenous vegetation with high aesthetic values (cultured nature).
11	Headland, Makarau River	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Escarpment above river-mouth. Headland landform. Covered by intact mature indigenous vegetation including kauri, kahikatea and tötara running down to water. Landscape unit ends of white ‘hump’ bridge.	Intact indigenous vegetation extending to water edge.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
12	Mataia Headland	Hill Country	Relatively high relief (escarpment & headland). Significant areas of maturing vegetation. Only low levels of built modification (houses).	Escarpment and headland landform at waters edge. Remnant indigenous vegetation with pockets of pasture. Pines define back edge of ONL unit.	Prominent coastal landform with largely intact cover of indigenous vegetation.
13	Glorit Knoll	Hill Country	Relatively high relief – knoll landform. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Discrete knoll landform, with solid area of mature coastal remnant forest.	Intact indigenous vegetation retained on discrete elevated knoll landform.
14	Mt Auckland	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Mt Auckland – intact mature indigenous forest remnant on prominent hill and high point of range.	Intact indigenous vegetation reinforcing locally prominent topography.
15	South Hoteo River	Hill Country	Relatively high relief (estuary headland). Significant areas of maturing vegetation. Only low levels of built modification (houses).	Small headland landform with intact cover of mature indigenous vegetation (taraire, puriri, kanuka, karaka) adjacent to road.	Intact indigenous vegetation reinforcing locally prominent topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
16	Tauhora River margins	Estuary	Intertidal margins with highly natural values, backed by land with moderate to rolling relief. Defined backdrop. Significant pockets of tall, predominantly indigenous vegetation. Only low density of subservient houses/built modification.	Strong patterning and strong endemic qualities, native forest remnants & mangroves combined with water and pasture. Remnant stands of indigenous vegetation including taraire, kauri, kahikatea, püriri, tötara and nïkau. Sinuous patterns, indicative of Kaipara Harbour vernacular – related to water bodies, landform and remnant stands of native vegetation.	Sequence from river channel/harbour waters through mangrove to terrestrial indigenous vegetation. Pattern of vegetation cover in relation to topography and natural processes.
17	Hiki Creek & Kahutaewao Creek valleys (Burma Road)	Hill Country	Relatively high relief, with rolling hills and gullies. Significant areas of maturing vegetation in gullies and in remnant patches. Only low levels of built modification (houses).	Two valley systems with good pattern of mature remnant forest intermixed with pasture on slopes.	Pattern of remnant vegetation interplayed with pasture (respondent to topography).
18	Fitzgerald/Burma/Run Roads ridge, Okahukura Peninsula	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Intact remnant & regenerating native forest. Intermixed with some pasture on high ridge and spurs.	Intactness of forest and pattern of remnant vegetation interplayed with pasture (respondent to topography).

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
19	Oruawharo Heads, Okahukura Peninsula	Harbour Headlands & Estuary	Intertidal margin that is highly natural – harbour headlands and estuary edge. Land with relatively high relief. Defined Backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses/built modification.	Vegetated estuary/harbour. Extensive area of remnant coastal regenerating forest on headlands & coastal escarpments, framing Oruawharo River mouth.	Intact remnant indigenous vegetation cover at river mouth/harbours edge, responsive to landform.
20	Tapora Dune Islands & CMA	Harbour & Estuary	Intertidial margin that is highly natural. Significant areas of duneland/lowland vegetation. Only low density of subservient houses/built modification.	Duneland barrier islands with low vegetation cover (some pampas) and mangroves. ONL unit extends only to the immediate landward edge. Tapora Settlement adjacent.	Intact duneland landforms, barrier islands.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
Rodney District					
21	West Te Arai Point	Hill Country	Relatively high relief. Significant areas of maturing vegetation particularly in gullies. Only low levels of built modification (houses).	Remnant stands of indigenous forest & regenerating shrubland among rolling rural pasture & ridges. Clear patterning and structure, reinforcing landform. Some level of rural development.	Interplay between remnant vegetation and rural pasture reinforcing topography.
22	Pakiri Beach	Coastal	Undeveloped east coast coastline. Strong landform frame /definition. Only low density subservient development (houses).	Major ocean beach, inland boundary defined by pine forest in the north (Mangawhai Forest), extending to dune system (ridge) in the centre and crest of coastal escarpments at the southern end.	Natural duneland topography, strongly expressed coastal processes. Long uninterrupted sweep of beach.
23	North Te Hana – Tomarata Road	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Similar to Unit 21. Remnant and regenerating indigenous vegetation following gullies and top of gully ridges. Pattern aligns with landform. Low levels of development within unit.	Interplay between remnant vegetation and rural pasture reinforcing topography.
24	Pakiri Block Road	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Ridge tops, coastal escarpment and parts of coastal terrace with large pockets of remnant indigenous forest. Pattern of vegetation reinforces elevated landforms and follows some streams.	Remnant indigenous vegetation reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
25	Pakiri Foothills	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Remnant mature indigenous vegetation in large areas and patterning of remnant forest and pasture on steep to rolling terrain. Totara & kauri in particular. Extends to lowland stream margins in places. Small pine intrusions & rural development.	Intact remnant forest. Interplay between remnant vegetation and rural pasture, reinforcing topography.
26	Rahuikiri Road, Pakiri	Lowland	Wetlands with areas of open water. Undeveloped margins. Significant remnant indigenous vegetation. Low levels of development.	Pocket wetland of good size opposite Pakiri Flats. Kahikatea and intact vegetation cover.	Intact wetland and vegetation cover.
27	Mt Tamahunga	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification.	Very mature intact native vegetation including Mt Tamahunga, dramatic landform feature. Some pockets of pasture finger up into bush edges. Low levels of rural modification. Contiguous with Unit 31 to the south.	Dramatic landform feature with intact indigenous vegetation cover and remnant vegetation with pasture fingering into edges.
28	Coastline from Pakiri River to Omaha Cove	Coastal	Undeveloped east coast coastline. Strong landform frame/definition. Only low density subservient development (houses).	Rocky headlands and bays with escarpment backdrop. Coastal indigenous vegetation along with coastline interspersed with more open areas. Scattered coastal settlement interspersed.	Coastal landforms with remnant indigenous vegetation cover. Interplay between remnant vegetation and rural pasture, reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
29	Ti Point	Harbour & Estuary	Land with relatively high relief. Defined backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses/built modification.	Rocky harbour and estuarine margins defined by backdrop of rolling hills and native vegetation remnants. Includes a number of small bays and coves. High sense of place values. Residential pockets are tucked in and subservient.	Coastal landforms with remnant indigenous vegetation.
30	South of Rodney Road, Leigh	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Intact remnant and regenerating indigenous vegetation on ridge tops behind Leigh. Pockets of pasture and low levels of built intrusion.	Interplay between remnant vegetation and rural pasture reinforcing topography.
31	Pukematakeo (near Omaha)	Hill Country	Relatively high relief. Significant pockets of maturing vegetation. Only low levels of built modification (houses).	Remnants stands of vegetation intermixed with pasture on slopes around prominent landform feature of Pukematakeo. Low levels of built development. Contiguous with Unit 27 to north.	Interplay between remnant vegetation and rural pasture, reinforcing topography - local landform feature.
32	Dome Forest	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Dome Forest - intact remnant and regenerating forest on high relief landform. Some pine intrusion. Minimal pasture. Very low levels of built modification. Excludes “frog pool” roadside development.	Intact indigenous vegetation reinforcing landform.
33	Omaha Kahikatea Swamp Forest	Lowland	Significant remnant indigenous kahikatea forest. Low levels of development.	Lowland coastal kahikatea forest pocket, contiguous with estuarine edge.	Intact indigenous vegetation reinforcing landform.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
34	Waikokopu Creek (inner Whangateau Harbour)	Harbour & Estuary	Intertidal margin which is highly natural. Low lying landform backdrop. Only low density of subservient houses/built modification.	Saltmarsh, mangroves and intertidal mud flats	Head of harbour and intertidal area.
35	Northern end Mangatawhiri (Omaha) Spit	Coastal	Undeveloped east coast coastline. Dunes and distal spit. Strong landform frame / definition. Only low density subservient development (houses).	Coastal dunes & beach at northern end of Omaha Spit (aligns with open space area) & adjacent coastal marine area at entrance to Whangateau Harbour.)	Coastal landforms with remnant vegetation. Prominent landform feature framing entrance to Whangateau Harbour.
36	Matakana River – Christian Bay	River mouth and Coastal	Undeveloped east coast coastline. Strong landform frame / definition. Only low density subservient development (houses). Note: some coastal settlement areas excluded.	Rocky shoals and bays, headlands, generally with some native cover behind. Dispersed residential development, but settlements excluded. Includes remnant stands of indigenous forest extending inland as part of coastal backdrop, with some pasture areas interspersed. Extends up the Matakana river mouth coastal edge.	Coastal landforms with remnant indigenous vegetation.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
37	Tawharanui Peninsula	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Tawharanui Regional Park and adjacent areas of similar character. Rolling landform with remnant pockets of planted and naturally regenerating indigenous vegetation, interspersed with pasture. Includes extensive coastline.	Interplay between remnant vegetation and rural pasture, reinforcing topography.
38	Matakana River South	Coastal	Undeveloped east coast coastline. (Development sits behind unit). Strong landform frame / definition. Only low density subservient development (houses).	Coastal escarpment with more or less intact indigenous vegetation cover. Some residential development within unit, but not dominant. Most residential development sits behind a top escarpment.	Coastal landforms with remnant indigenous vegetation.
39	Scandrett Regional Park- Martins Bay	Coastal	Undeveloped east coast coastline. Strong landform frame / definition. Only low density subservient development (houses).	Headland with steep escarpment and coastal forest remnant, framing the southern end of Kawau Bay.	Coastal landforms with remnant indigenous vegetation
40	Mahurangi East Regional Park	Coast	Undeveloped east coast coastline. Strong landform frame / definition. Only low density subservient development (houses).	Coastal escarpment, prominent, dramatic landform, remnant and regenerating coastal forest, south of Martins Bay and including entire headland landscape. Some pasture also extending down to waters edge. Limited development.	Coastal landforms with remnant indigenous vegetation. Interplay of pasture within vegetated landscape.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
41	Te Kapa River headwaters (Mahurangi)	Harbour & Estuary	Defined Backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses/built modification.	Extensive mangrove and saltmarsh estuarine areas linked to bush remnant extending up valley system, creating strong pattern with adjoining pasture.	Interplay between remnant vegetation and rural pasture, reinforcing topography.
42	Scotts Point & Casnell Island	Harbour & Estuary	Land with relatively high relief. Defined backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses/built modification.	Prominent headland (Scotts Point and Casnell Island) with large areas of remnant and regenerating coastal forest. Some areas of low density residential development. Limited pasture.	Coastal landforms with remnant indigenous vegetation. Interplay of pasture within vegetated landscape.
43	West Mahurangi Harbour	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	West side of Mahurangi Harbour. Significant areas of remnant indigenous forest extending from the harbour margins (and including those margins) into the hill backdrop. Pasture interplays with pattern of forest to reinforce landform. Low level of rural residential development.	Interplay between remnant vegetation and rural pasture, reinforcing landform.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
44	Mahurangi-Waiwera	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Rolling to steeply rolling hill country with pasture intermixed with remnant forest and incised coastal valleys, with escarpments covered in native forest. Coastline with cliffs and forest remnants. Some areas of more intensive settlement excluded.	Coastal and hill country landforms with remnant indigenous vegetation and pattern of pasture reinforcing topography.
45	Kaipara Flats	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Prominent knoll landform with strong patterning of pasture and remnant forest with lowland apron of tōtara and kahikatea dominated forest along stream corridors, mixed with pasture.	Interplay between remnant vegetation and rural pasture, reinforcing topography.
46	Upper Puhoi Valley	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Steep hill country and gullies as well as escarpment with intact and pockets of native remnant forest, interspersed with pasture. Strong pattern and structure.	Interplay between remnant vegetation and rural pasture, reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
Central Rodney - Orewa					
47	Upper Waiwera Road	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Pockets of remnant forest including kahikatea among rolling pasture and following stream corridors. Some rural development, but retaining a clear and cohesive 'natural' patterning.	Interplay between remnant vegetation and rural pasture, reinforcing topography.
48	Wainui Road	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Predominance of remnant indigenous forest on ridgeline and hills, extending down to a stream gully on the southern side.	Indigenous forest remnants reinforcing topography.
49	Sunnyside Road, Coatsville	Lowlands	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Remnant bands of indigenous forest on escarpments and ridges, extending in some places down stream corridors. Kauri, kahikatea, tānekaha prominent. Interplay with pasture on fringes	Indigenous forest remnants reinforcing topography. Interplay with pasture.
50	Shakespear Regional Park & Coastline	Coastal	Undeveloped east coast coastline. Strong landform frame/definition. Only low density subservient development (houses).	Shakespear Regional Park, cliff margins around to Army Bay and Okoromai Bay. Dramatic coastal cliff profiles at sea edge combined with pockets of regenerating indigenous vegetation, mixed with pasture on rolling terrain.	Coastal landforms with remnant indigenous vegetation and pattern of pasture reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
51	Okura Estuary Headlands	Coastal	Undeveloped east coast coastline. Strong landform frame / definition. Only low density subservient development (houses).	Okura Estuary and Long Bay Headlands, including indigenous forest covered escarpments and dramatic cliff-line.	Coastal/estuarine landforms with remnant indigenous vegetation and pattern of pasture reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
North Shore City					
1	Paremoremo Escarpment	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Follows road along ridge and Paremoremo Stream along bottom. Intact indigenous vegetation, with limited mature pine intrusion.	Indigenous forest remnants reinforcing topography.
52	Oteha Stream Escarpment	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Oteha Valley Escarpment. Intact indigenous vegetation on prominent escarpment landform. South facing.	Indigenous forest remnants reinforcing topography.
53	Lucas Creek	Harbour & Estuary	Intertidal margin which is highly natural. Backed by land with relatively high relief. Defined backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses / built modification.	Lucas Creek vegetated escarpment down to estuary margins with remnant coastal forest. Rogue mature pines. Canopy species include kauri, kahikatea, kanuka, totara, tanekaha, kowhai.	Indigenous forest remnants reinforcing topography.
54	Long Bay	Coastal	Undeveloped east coast coastline. Strong landform frame/definition. Only low density subservient development (houses).	Coastal backdrop to northern part of Long Bay Regional Park. Dramatic coastal headlands, with indigenous vegetation – pohutukawa.	Coastal landforms with remnant indigenous vegetation reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
Franklin District					
55	West Coast Awhitu Peninsula	Hill Country & Coastal	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Extensive landscape with dramatic sand ridge coastal landform and dramatic cliffs and ridges abutting the Tasman Sea. Indigenous forest remnants, mainly in gullies and on steep slopes, intermixed with pasture. Sporadic housing (farm and rural residential). Some mature and young plantation pine that has generally been excluded.	Coastal and coastally derived landforms with remnant indigenous vegetation and pattern of pasture reinforcing topography.
56	Lakes Whatihua, Rotoiti, & Puketi	Lowland	Lakes and wetlands with areas of open water. Undeveloped margins. Low levels of development. Cohesive pattern.	Small lakes either side of Kariotahi Road framed by open dune ridges and pasture with wetland margins, raupö and other species	Natural lakes and wetlands.
57	Kariotahi Coastline	Coastal	Undeveloped west coast coastline. Strong landform frame / definition. Only low density subservient development (houses).	Dramatic linear Kariotahi coastline comprising dynamic west coast beach fronts and iron sand, with steep escarpment backdrop (pasture and some pines).	Long extent of beach and dunes with relatively undeveloped rural backdrop.
58 (most of unit is in the Waikato Region & is not shown on maps)	Pukeoware	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Central highpoint with significant stands, and lone trees or groups of indigenous vegetation interspersed with pasture. Low density of rural and rural residential housing present, but subservient.	Interplay of indigenous forest remnants and pasture, reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
59	West Ramarama & Bombay (Two sites)	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Rolling terrain on the fringes of the Bombay Hills with large pockets of remnant broadleaf forest among pasture, horticulture and rural residential development. Some forest on steep escarpments.	Interplay of indigenous forest remnants and pasture, reinforcing topography.
60	Ponga Road	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Steep hill country with large tracts of remnant native forest following stream gullies and on upper slopes & ridges.	Interplay of indigenous forest remnants and pasture, reinforcing topography.
61 (most of unit is in the Waikato Region & is not shown on maps)	Pinnacle Hill	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Elevated hill country with intact cover of remnant indigenous vegetation. Areas of less established indigenous regeneration and pine excluded. Includes pastoral foothills where there is a low density development. Extends to lowland pastoral fringe near State Highway 2 and includes riparian and lowland kahikatea forest.	Interplay of indigenous forest remnants and pasture, reinforcing topography. I
62 (Part in Manukau City)	Hunua Ranges	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Intact mature indigenous forest on steep hill country and around water catchment lakes, extending down to the coastal margins of the Firth of Thames and some stream corridors. Includes pastoral toe slopes where forest interplays.	Interplay of intact mature indigenous forest and forest remnants with pasture, reinforcing topography. I

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
Manukau City					
63	Orere Point – Waimangu	Harbour and Estuary	Defined Backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses/ built modification.	Firth of Thames coastline with stands of remnant coastal forest extending up stream catchments and on slopes. Interplay with pasture.	Interplay of indigenous forest remnants and pasture, reinforcing topography.
64	Kauri Bay Headlands, Wairoa River	Coastal	Undeveloped east coast coastline. Strong landform frame / definition. Only low density subservient development (houses).	Two headlands defining Kauri Bay with intact indigenous vegetation, and rocky shores.	Coastal landforms with remnant indigenous vegetation reinforcing topography.
65	Mataitai Forest	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Remnant indigenous forest on high hill country intermixed with some pasture on slopes near the Ness Valley.	Interplay of indigenous forest remnants and pasture, reinforcing topography.
66	North Clevedon	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Discrete elevated hill landform at the back of Clevedon settlement with remnant indigenous vegetation. Some pine edges intrude.	Interplay of indigenous forest remnants with pasture, reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
67	Duder Regional Park	Harbour & Estuary	Intertidal margin which is highly natural. Backed by land with relatively high relief. Defined backdrop. Significant areas of tall predominantly native vegetation. Only low density of subservient houses/built environment.	Duder Regional Park – headland landforms (dramatic) combined with mangrove/saltmarsh beach and escarpment headland to the north of the Wairoa River.	Coastal landforms with remnant indigenous vegetation reinforcing topography.
68	Inland Kawakawa	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Seaward facing coastal ridges with remnant coastal forest combined with steep escarpments along rocky shoreline	Coastal landforms with remnant indigenous vegetation reinforcing topography.
69	Omana Regional Park	Harbour & Estuary	Defined backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses/built modification.	Omana Regional Park, coastal edge with fringe of native vegetation.	Coastal landforms with remnant indigenous vegetation reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
70	Trig Road Whitford	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Remnant and regenerating indigenous forest on stream escarpment, partly framed and in places interrupted by pasture and younger shrubland and regenerating vegetation. Both pines and pasture on periphery. Some subservient rural residential (behind Whitford).	Interplay of indigenous forest remnants and pasture, reinforcing topography.
71	Mangemangeroa Creek Escarpment	Harbour & Estuary	Land with relatively high relief. Defined backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses/ built modification.	Mangemangeroa Creek coastal escarpment with band of remnant forest above mangrove lined inlet.	Coastal landforms with remnant indigenous vegetation reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
Waitakere City					
72	South Titirangi	Harbour & Estuary	Land with relatively high relief. Defined backdrop. Significant areas of tall, predominantly native vegetation. Only low density of subservient houses/built modification.	South Titirangi coast. Coastal edge with contiguous indigenous vegetation extending into the Ranges backdrop. Kauri and mixed broadleaf forest. Includes sporadic houses set into bush, but not dominant. More densely settled areas excluded.	Coastal landforms with remnant indigenous vegetation reinforcing topography.
73	Waitakere Ranges and Coastline	Hill Country	Relatively high relief. Significant areas of maturing vegetation. Only low levels of built modification (houses).	Includes Waitakere Ranges, Tasman Sea and Manukau Harbour coastlines and water catchment lakes. Continuous forest with dramatic coastal margins (West Coast coastline). Some pockets of pasture and rural residential development. Te Henga wetlands. Muriwai and Te Henga headlands have areas of pasture with dramatic landform.	Coastal and inland ranges landforms with largely intact remnant indigenous vegetation reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
Hauraki Gulf Islands					
74	Rangitoto Motutapu Motuihe Motukorea (Browns) Tiritiri Matangi	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landforrm. Pastoral/open landscape expressing topography. Strong landform frame/definition.	Island landscapes defining Hauraki Gulf. Strong landform characteristics reinforced by vegetation cover including open pasture and remnant/regenerating/ planted indigenous vegetation. Strong landform and vegetation relationship in case of Rangitoto. Strong landform/sea relationship in case of Motukorea. Islands characterised by pattern of rocky shoreline and cliffs with sandy beaches and varying amounts of indigenous vegetation, particularly pöhutukawa. Built modification (houses) extremely limited – related to DoC management & visitor facilities. All islands in DoC ownership and have very strong identity and sense of place values for Auckland – particularly Rangitoto.	Retention of indigenous vegetation, both intact and remnant, reinforcing topography. Interplay of pasture and remnant and regenerating indigenous vegetation important on Motutapu and Motuihe. Landform strongly expressed and iconic.
75	Rakino Island Rocks and Headlands only	Islands	Undeveloped coastline. Strong landform frame / definition. Only low density subservient development (houses).	Coastal edge, rocky with rock shoals and islets. Mainly landform values. Poor vegetation cover. Some pine/macrocarpa and remnant pohutukawa.	Retention of coastal landforms and remnant pohutukawa.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
76	The Noises	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform. Strong landform frame / definition.	Includes David Rocks and Maria Island. Intact rocky islets, with sparse coastal vegetation cover	Retention of interplay between undeveloped coastal landforms and vegetation cover that reinforces topography
77	Waiheke Island Northern Headlands Hakaimango Point to Onetangi Bay	Islands	Largely undeveloped coastline. Vegetation pattern reinforcing landform and interplay with pasture. Strong landform frame / definition. Only low density subservient development (houses).	Dramatic headland landform. Coastal pohutukawa interspersed with steep cliffs, rock faces, pasture. Limited formed building sites (Thompson's Point) and houses generally subservient. Some earthworks.	Coastal landforms with remnant indigenous vegetation, particularly pohutukawa reinforcing topography.
78	Waiheke Island Eastern End	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform, interspersed with pasture and viticulture/olive plantings. Strong landform frame / definition. Only low density subservient development (houses.	Combination of dramatic coastline, headlands, coves and escarpments with remnant forest and pasture. Includes Puke Range as a major back-drop to the eastern end of the island. Basin catchments of regeneration forest. Largest contiguous areas of mature coastal forest on Waiheke. Includes Stoney Batter boulder fields and vineyard/olive grove development. Interspersed with taraire and püriri forest. Strong landform.	Coastal landforms with intact and remnant indigenous vegetation, reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
79	Waiheke Island Awaawaroa Bay & Valley	Islands	Undeveloped coastline Intact vegetation pattern reinforcing landform, pasture interplay Strong landform frame/definition Only low density subservient development (houses)	Intact and regenerating native forest on coastal ridges. Ecotone through to salt water wetland, saltmarsh and mangroves. Some young regeneration.	Interplay between indigenous vegetation and pasture, reinforcing topography.
80	Waiheke Island South coast headlands (Whau Point to Awaawaroa Bay)	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform. Strong landform frame/definition. Some houses/development.	Rocky coastal headlands with remnant pöhutukawa and small pockets of coastal forest interspersed with small coves and bays. Some development and emerging houses.	Coastal landforms and remnant indigenous vegetation.
81	Waiheke Island Whakanewha	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform. Strong landform frame/definition (basin)	Regional park, wetlands and re-emergent coastal forest. Regional park catchment basin with wetland, regenerating hill slopes with contiguous tracts of indigenous forest. Some mature stands of kahikatea. Birdlife.	Coastal landforms, wetlands and indigenous vegetation.
82	Waiheke Island South-western rocks & Islands	Islands	Undeveloped coastline Strong landform frame/definition	Includes Motukaha and Crusoe Islands and the three small rocks/knolls in Oakura Bay. Some vegetation, mainly landform characteristics.	Coastal landforms and remnant vegetation.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
83	Waiheke Island Park Point Headland	Islands	Strong landform frame/definition	Headland landform. Some weed species and exotics intervene. Generally intact and mixed remnant scrub with pasture, some exotics. Cliffs with attendant pöhutukawa.	Coastal landforms and remnant vegetation, particularly pöhutukawa.
84	Pakatoa Island & Tarahiki (Shag) Island	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform. Strong landform frame / definition.	Coastal edge, dramatic bluffs and rock shoals. Native vegetation. Mainly landform values.	Retention of interplay between coastal landforms and indigenous vegetation.
85	Ponui Island	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform, pasture interplay. Strong landform frame / definition. Only low density subservient development (houses).	Large island, dramatic coastal edge with cliffs and sheltered beaches. Extensive native vegetation along coastal edge and valleys. Inland interplay between remnant forest, pasture and rolling ridge landforms, also a feature.	Retention of coastal landforms and interplay between indigenous vegetation and rural pasture reinforcing topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
88	Aotea Great Barrier Island (includes Kaikoura, Broken & Rakitū (Arid) Islands)	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform. Strong landform frame/definition. Only low density subservient development (houses).	Intact regenerating and remnant indigenous forest together with clearly articulated landforms that interact very strongly with the seas around Great Barrier. Dramatic skyline ridges and rock outcrops. Stands of mature remnant forest. Spectacular central spine with highpoints, Mt Hobson, Matawhero/the Pinnacles etc. Pine woodlots and scattered rogue pines. Includes some small homesteads but excludes small settlements and some pastoral and forest areas. Includes the harbours eg Port Fitzroy and estuaries eg Whangapoua. Significant DOC lands. Includes off shore islands eg Kaikoura, Broken and Rakitu (Arid) Islands.	Retention of coastal landforms, indigenous vegetation and interplay between vegetation and landform/topography.
89	Hauturu Little Barrier Island	Islands	Undeveloped coastline Intact vegetation pattern reinforcing landform. Strong landform frame/ definition.	Extensive intact mature indigenous vegetation cover that clearly articulates landform. Island is roughly symmetrical with a number of razor back ridges. Coastline of dramatic of sheer cliffs, with some boulder beaches. Strong relationship between coastline and surrounding sea. Iconic island landscape. Owned by DoC and managed as Nature Reserve.	Retention of indigenous vegetation cover and interplay between vegetation and landform/topography.

Area Number	Location Name	Landscape Type	Landscape Type Descriptors	Additional Information	Key ONL Elements, Features & Patterns
Rodney District					
86	Kawau Island	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform. Strong landform frame / definition. Only low density subservient development (houses).	Coastal, intact and regenerating indigenous vegetation, mānuka/kānuka, emergent kauri, püriri, pöhutukawa around coast. Windswept in east, more sheltered in western bays. Where houses included they are subservient or small scale. Excludes coastal development and more dense areas of houses in bush as well as main pine areas. Some individual and groups of pines in the ONL area.	Retention of coastal landforms and indigenous vegetation cover.
87	Moturekareka Island & islets	Islands	Undeveloped coastline. Intact vegetation pattern reinforcing landform. Strong landform frame / definition.	Collection of islets, rock shoals and headlands with beaches. Dramatic landform and interplay with water. Vegetation includes scruffy pine and some pohutukawas and regenerating indigenous vegetation.	Retention of coastal landforms and indigenous vegetation.