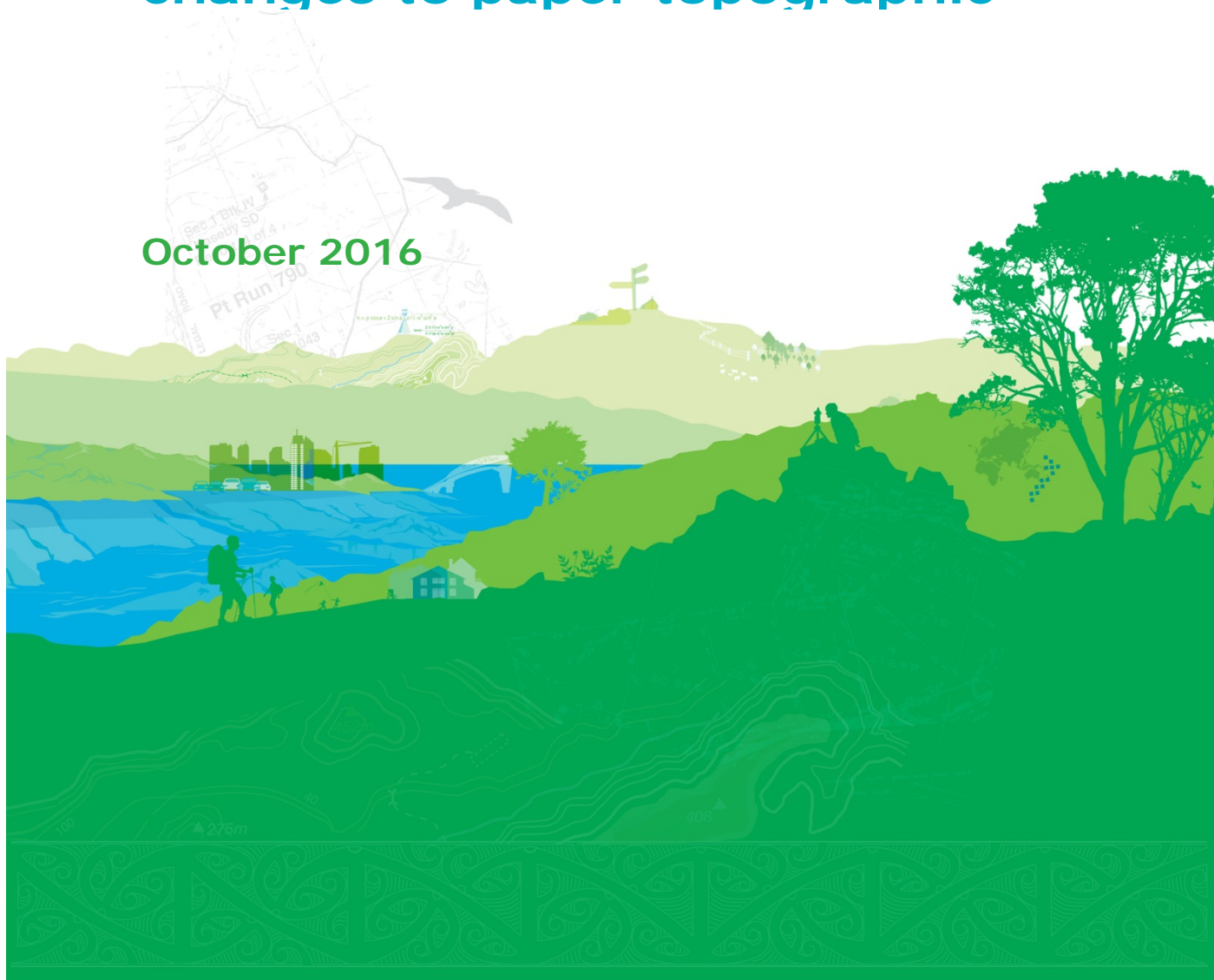


## Have your say on proposed changes to paper topographic

October 2016



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# Purpose

We're proposing changes to the way we print our range of topographic maps, the price we charge for them and the minimum quantity that retailers can order from the print company.

The proposed changes better reflect the way people use our maps, while ensuring that the price paid covers the cost of printing, warehousing and distributing them.

We're keen to hear your view on these proposals and whether they'd affect the way you use our maps. All submissions will be considered before any decisions are made. Once we have received feedback, we will develop recommendations for the Minister for Land Information to consider.

## Introduction

### Background

We record the physical features of our built and natural environment to provide up-to-date topographic maps. These maps show both natural and man-made features (e.g. rivers, vegetation, contours, streets and buildings).

Topographic maps are used for a range of purposes and are produced in two formats: paper and digital. Uses include outdoor recreation (such as tramping), land management, search and rescue, and defence planning.

#### Formats:



**Paper**

Available for purchase from retailers such as Whitcoulls and Bivouac



**Digital**

Available for download via [www.linz.govt.nz](http://www.linz.govt.nz)

We provide paper topographical maps to you through a contract with a print company.

#### How our maps are delivered to you:



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## Why do we print topographic maps?

### *LINZ's mandate*

The agreement that established LINZ<sup>1</sup> requires us to maintain publicly available core geographic information that supports New Zealand's constitutional framework, national security and emergency services responses. It also requires us to undertake topographical mapping with national coverage and consistent standards, to a degree of quality and quantity defined by the defence force, police, fire service, ambulance, search and rescue, and agricultural, horticultural and forestry ministries.

We produce up-to-date digital topo maps and data, which are made freely available online. We also produce a range of paper maps, which are provided to emergency services (on request), and sold to the public by map retailers

We are required to recover the cost of printing, warehousing and distributing our maps. The *Land Information New Zealand (Fees and Charges) Amendment Regulations 2009* allows us to set a \$3.11 fee<sup>2</sup> for each map we sell to retailers. Any change to fees requires these regulations to be amended.

### *Why is there still a need for paper maps?*

We recently reviewed both the need to supply paper topo maps, and the model we use to deliver them to you. Other ways of meeting our mandate were looked at. For example, we could provide digital products only. However in the short-term, we feel that there is not an adequate substitute for our paper maps. It is unlikely that the market would provide a full range of paper topo maps in our absence.

Public safety is paramount. Our paper maps are still used by emergency services for planning, back-up purposes, and in times of crisis. Additionally, we want to ensure that all recreational users have easy access to consistent maps that are fit for purpose. Mobile phones and tablets are vulnerable to failure and have power needs. A paper map, on the other hand, can be used in many more situations.

Until technology advances to a level that allows otherwise, we want to ensure that a paper topo map is available for every part of the country.

## Why we're proposing change

### *The way people use our topographic maps has changed.*

Because of this, the \$3.11 fee that we currently charge retailers for our paper maps does not properly reflect the costs of printing, warehousing and distributing them.

Each unit costs LINZ approximately \$5.20 to print, warehouse and distribute (based on printing data over the past four years). This has resulted in an average \$0.116 million shortfall per annum (pa) since 2012. We have calculated that this deficit will grow further to \$0.195 million pa.

### *Why is this happening?*

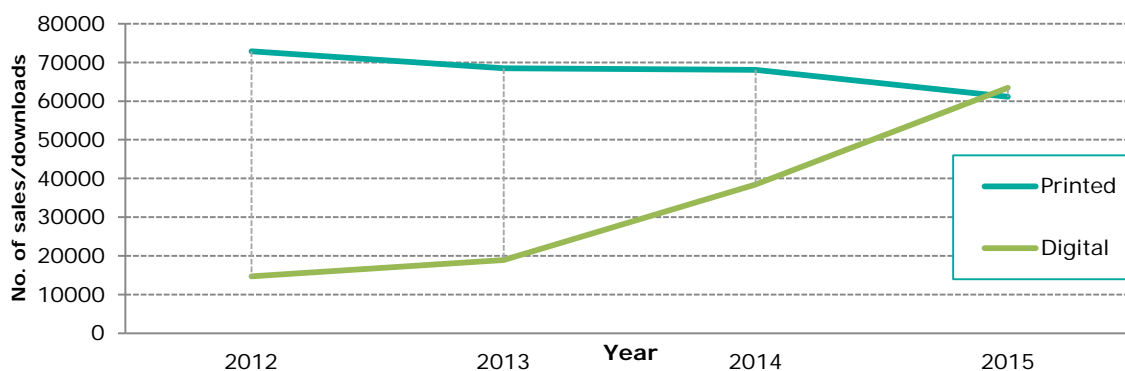
An increasing number of people prefer to download digital versions of our maps. This means we no longer sell as many paper maps – a trend we expect will continue over time. In 2015, the number of maps downloaded exceeded the number purchased for the first time ever (see graph on pg. 5):

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<sup>1</sup> Recorded in [CAB MIN (95) M32/8Ei]

<sup>2</sup> The fee for our Topo50 and Topo250 series. Together, these account for approximately 99% of all topo maps sold

### MAP SALES VS DOWNLOADS: 2012-2015



This affects us because our contract with the print company does not account for changes in map sales. That means we are paying to print and store maps that do not sell. These fixed costs are detailed below:

### VARIABLE AND FIXED PRINT COSTS: 13/14 – 15/16

		Item	3 Year Costs	1 Year costs
Print Costs	Fixed <sup>3</sup>	Quality, Warehouse, & Debtor Management	45,500	15,167
		Packing Materials	114,000	38,000
		Pick & Pack Labour	141,500	47,167
		Storage	56,200	18,733
	Variable <sup>4</sup>	Cost of sales	455,993	151,998
		Write-offs	29,871	9,957
	<b>Total</b>			<b>843,056</b>

Additionally, a fast changing landscape, combined with technological advances, place name changes and LINZ's need to meet customer expectations mean that we are making updates to maps more frequently than in the past. Once printed, our maps can become quickly out of date.

This combination of falling demand and frequent updates results in surplus stock of printed maps. Unsold paper maps need to be written off, which ends up costing LINZ.

We mostly use a method called 'offset' to print out maps, which has high set-up costs, and is suited to longer runs. We have trialled shorter printing runs to reduce the number of maps written off. However, that increases the average printing cost of each sheet, further adding to our shortfall.

A method called 'plot' printing has been used for some sheets to compensate for low demand and more frequent updates. Plot printing has no set-up costs. However, it results in a higher cost per sheet, which isn't covered by the current fee.

The two printing methods are summarised on the next page, for you to compare:

<sup>3</sup> Fixed costs: packing materials, labour, storage and warehousing

<sup>4</sup> Variable costs: printing and write-offs. Print costs are inversely related to sales (i.e. as the number of maps sold increases, the average printing cost per map decreases)



**Offset printing** produces consistent and high quality products, but can be expensive unless large numbers are printed.



**Plot printing** maps are produced using an inkjet plotter. There is no setup required, so the cost of each map plotted is the same irrespective of whether 1 or 100 maps are plotted. The quality is consistent with maps produced by offset printing. This is good for smaller print runs. In the past the print quality of plot printing has been poorer than offset quality, but recent developments mean the quality is now comparable to offset printing.

### *Our proposed efficiency gains*

There are some things we can do to make our maps a little cheaper. Our contract with the print company will be renegotiated, so that we no longer have to pay for storage costs that we don't need. We're also investigating the possibility of implementing minimum order quantities to reduce labour costs associated with distributing our maps.

However, while these measures may help, we can't be exactly sure how map usage will change over the next five years. Demand could continue to fall, or it could plateau. There are also certain market forces that are out of our control, such as paper and ink costs.

Responses to our request for proposal (RFP) will clarify what efficiency gains we may be able to make. However, before that, we would like to hear your views on the following proposal:

## Proposal

Our proposed changes would better reflect changing customer demand for paper maps. They would also raise the fees we charge retailers to reflect today's higher cost of printing, warehousing and distributing maps (relative to 2009). Please note that all proposed fees are indicative, and cannot be confirmed until the RFP is complete.

We are consulting on three options and a process change that could keep costs down. These three options are:

1. A mixed printing model with a single fee
2. A mixed printing model with a dual fee
3. The status-quo printing model with a single fee

The proposed fees would apply to our entire range of topo maps.

The proposed process change involves implementing a minimum quantity of sheets that can be ordered from the print company.

Our options have been assessed against the following criteria:

1. Speed/time to implement

- 
2. Quality of service maintained
  3. Cost efficient
  4. Meets treasury guidelines
  5. Satisfies LINZs mandates (including legal obligations)
  6. Satisfies public and Government needs

We also considered the option of plot printing all maps and setting the fee at \$9.50-\$10.10. However, our analysis concluded that this would be operationally inefficient, too costly and may be impracticable for large print runs, especially given that some of our map sheets sell over 600 units per year. Greater economies of scale are achieved when the offset printing method is used for larger runs.

The estimated fee levels are given in a range, as we won't know what the exact amounts will be until a new contract is signed.

We prefer option 1. It has the most equitable outcome, and is the most administratively efficient, even with demand fluctuations. It also ensures that you will continue to receive high-quality paper topo maps. However, we're keen to hear your views on all options that we could take.

The status-quo is included, so that you can compare our proposals against the way we currently print topo maps.

## Status-quo: How do we currently operate?

Almost all of our maps are printed using the 'offset' method, with some limited experimentation using the 'plot' method.

A \$3.11 wholesale fee is charged for each sheet. The deficit is covered with LINZ's baseline funding. The retail price you currently pay for a single sheet sits around \$8.00.

## Option 1: A mixed printing model with a single fee (our preferred option)

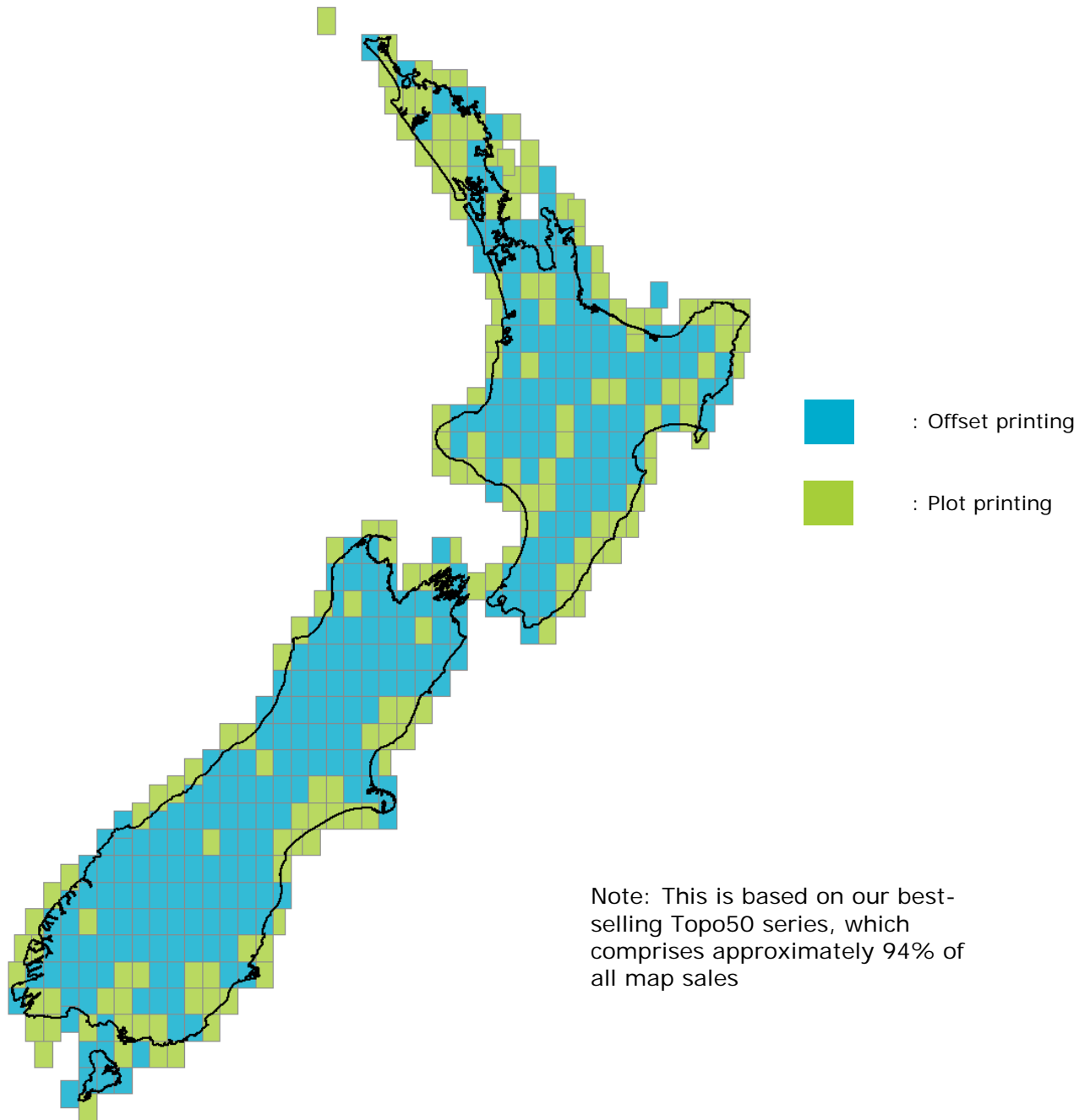
### Explanation: A mixed printing model

We want to print paper topographic maps using a permanent combination of offset and plot printing methods.

Offset printing would be used for our best selling sheets. Plot printing would be used for low selling sheets (i.e. sheets that sell less than 50 units each year). The map (pg. 8) shows the sheets likely to be printed by each method:

---

## New Zealand Topo50 sheets:



The quality of the maps purchased would remain the same (for those printed with offset printing) or largely similar (for those printed with plot printing).

Colour reproduction and paper type varies slightly between plot printed and offset printed maps. Offset printed maps are produced on 94gsm paper. Plot printed maps are produced on 90gsm paper, which is similar to what LINZ uses for nautical charts. See below for sample images:



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## Plot printed map sample:



## Offset printed map sample:



To ensure all our maps are printed to a high standard, we would make it a requirement in any future contract that plot printing produces a map near or equal in quality to that produced by offset printing.

See Appendix 1 for a list of the maps that would likely be plot printed and those likely to be offset printed. Note that this may change over time as demand for maps changes.

## Explanation: A single fee for all maps

In addition to changing the way we print our maps, we need to increase the amount we charge retailers to purchase our maps for re-sale. This is to make sure that the price of maps better reflects the cost of producing them.

We would have one fee for all maps, despite some costing more to print than others. Offset printing costs approximately \$5.20<sup>5</sup> per unit, while plot printing costs approximately \$9.50<sup>6</sup> per unit. The new map fee is likely to be between \$6.30 and \$7.80 (Midpoint = \$7.05).

---

<sup>5</sup> Based on 2015/16 printing data

<sup>6</sup> Based on 2015/16 printing data

---

This will result in some cross-subsidisation; a portion of the fee used to recover the cost of printing higher-selling sheets would be used to recover the cost of printing lower-selling sheets.

## Why make these changes?

Using a combination of offset and plot printing methods means we can keep printing costs to a minimum. Additionally, this option ensures you continue to receive high-quality maps.

Increasing fees ensures that they accurately reflect the cost of printing, warehousing and distributing maps. This will eliminate our deficit.

## What does this mean for you?

We would charge the same price for all sheets in all series. We anticipate that the wholesale price of paper topo maps will be between \$6.30 and \$7.80 (Midpoint = \$7.05).

Because LINZ doesn't directly sell maps to the public, your retailer determines the price you pay. However, based on discussions with retailers, we anticipate that the retail price would be around \$12.00.

## How does this compare to the status-quo?

Plot printing will be more widely used than what it is currently and the price you pay for maps will increase from the status-quo.

	Status-quo	Option 1
Print model	Offset (some experimentation with plot)	A mix of offset and plot
Map fee (approximate)	\$3.11	\$6.30 - \$7.80 (Midpoint=\$7.05)
Retail price (approximate)	\$8.00	Around \$12.00

## Option 2: A mixed printing model with a dual fee

### Explanation: A mixed printing model

We would print maps using a combination of offset and plot methods. Refer to Option 1 for further detail.

### Explanation: A dual fee system

This option has a dual pricing structure. The fee we charge for each sheet would be directly related to printing, warehousing and distribution costs. We would charge one fee for offset printed maps, and another for plot printed maps. The fee for offset printed maps is likely to be between \$5.80 and \$7.40 (Midpoint = \$6.60). The fee for plot printed maps is likely to be between \$9.50 and \$10.10 (Midpoint = \$9.80).

---

## Why make these changes?

Using a combination of offset and plot printing methods means we can keep printing costs to a minimum. Additionally, this option that ensures you continue to receive high-quality maps.

A dual fee system means that there will be less cross-subsidisation between topo map sheets. The two new fees more accurately reflect the cost of printing, warehousing and distributing maps. This will eliminate our deficit.

## What does this mean for you?

It means you would be likely to pay different prices for different maps. We anticipate our most popular maps would be priced lower, as they cost less to print. Our least popular maps would be priced higher, as they cost more to print.

Like Option 1, we cannot guarantee the price that retailers would charge for our maps. We anticipate that the prices would range from around \$11.00 for offset maps, and around \$14.00 for plot maps.

## How does this compare to Option 1 and the status-quo?

Plot printing will be more widely used than what it is currently. The price you pay for maps will increase from the status-quo.

A dual pricing structure means you would be likely to pay less for our more popular maps, than the price Option 1 would deliver. There will also be less cross-subsidisation between series. However, that means you would pay more for our least-popular maps.

	Status-quo	Option 1	Option 2
Print model	Offset (some experimentation with plot)	A mix of offset and plot	A mix of offset and plot
Map fee (approximate)	\$3.11	\$6.30 - \$7.80 (Midpoint=\$7.05)	<b>Offset:</b> \$5.80 - \$7.40 (Midpoint = \$6.60) <b>Plot:</b> \$9.50 - \$10.10 (Midpoint = \$9.80)
Retail price (approximate)	\$8.00	Around \$12.00	<b>Offset:</b> Around \$11.00 <b>Plot:</b> Around \$14.00

## Option 3: Offset printing and a single fee

### Explanation: Offset printing

All maps would be printed using the offset model. We would no longer trial the plot printing method. Refer to Option 1 for further information on the printing methods.

---

## Explanation: A new increased fee

We would need to increase map fees to cover the cost generated from producing all sheets using the offset method. We estimate that the new fee will need to be between \$7.00 and \$8.10 (Midpoint=\$7.90) to cover an estimated shortfall of \$0.195 million pa.

## Why make these changes?

The new fee will accurately reflect the cost of printing, warehousing and distributing maps. This will eliminate our deficit.

## What does this mean for you?

The maps you receive will be identical to what they are now. However, this means that you will pay more for each unit. We estimate that this price would be around \$13.00

## How does this compare to Options 1 and 2, and the status-quo?

Like the status-quo, most maps will be offset printed. This won't allow us to make the same efficiency gains as we could for Options 1 and 2. While map quality will remain identical, we anticipate that the prices you are charged will increase. We would hope to keep this to a minimum by implementing our proposed efficiency gains.

	Status-quo	Option 1	Option 2	Option 3
Print model	Offset (some experimentation with plot)	A mix of offset and plot	A mix of offset and plot	Offset
Map fee (approximate)	\$3.11	\$6.30 - \$7.80 (Midpoint=\$7.05)	<b>Offset:</b> \$5.80 - \$7.40 (Midpoint=\$6.60). <b>Plot:</b> \$9.50 - \$10.10 (Midpoint=\$9.80)	\$7.00 - \$8.10 (Midpoint=\$7.90)
Retail price (approximate)	\$8.00	Around \$12.00	<b>Offset:</b> Around \$11.00 <b>Plot:</b> Around \$14.00	Around \$13.00

## Questions for you

Please read the following statements/questions and indicate your view.

There are no right or wrong answers.

We also welcome your thoughts and comments on this proposal.

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What pricing structure do you prefer?

*One price for all maps (Options 1 & 3)*

*A dual pricing structure (Option 2)*

A price increase is likely to affect my use/sale of paper topographic maps

*Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree*

If you need several sheets, would a price increase deter your ability to purchase maps?

*Yes*

*No*

How much would you be prepared to pay for a topo map?

*\$8-10*

*\$10-12*

*\$12-14*

*\$14-16*

*\$16-18*

*\$18+*

Your comments on LINZ's proposed paper topographic map fee increase:

The proposed changes to the way LINZ prints paper topographic maps may affect my use/sale of them

*Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree*

I am comfortable with LINZ using both the plot and offset methods to print maps

*Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree*

Your comments on LINZ's proposed printing model changes:

---

# Questions for map retailers

## Minimum order

### Explanation

We are also proposing to create a minimum quantity of maps (this could be any combination of sheets) that retailers must order from the print company. We anticipate that this may be approximately 50 units.

Map orders incur warehousing, shipping and handling costs. Inefficiencies are created when small quantities are ordered (e.g. 1-5 sheets) and so costs become lower when spread over an order for a much larger quantity of maps (e.g. 50 sheets). We estimate that a minimum order quantity will save \$20,000 each year.

### What does this mean for you?

A minimum required quantity will reduce the processing and warehouse costs associated with each map order. That will help us to keep our fees down and better cover the costs of paper topo map printing and warehousing. However, it's important to us to understand whether a minimum order would have an impact on your business.

### Questions for you

Please read the following statement and indicate your views.

There are no right or wrong answers.

We also welcome your thoughts and comments on this proposal.

### **I support LINZ's proposal to create a minimum order quantity**

*Strongly disagree*    *Disagree*    *Neither agree nor disagree*    *Agree*    *Strongly agree*

**What will be the impact of a minimum order quantity on you (retailers) and your customers?**

**Your comments on LINZ's proposal for a minimum order quantity:**

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## Next steps

You can write on this document, or fill in the attached response form.

Please email your completed submission to [LINZregulatorysubmission@linz.govt.nz](mailto:LINZregulatorysubmission@linz.govt.nz) with 'Topo Maps' in the subject line.

Alternatively, you can post it to:

### **Topographic Maps Review: Policy & Frameworks**

Level 7, Radio New Zealand House

155 The Terrace

PO Box 5501

Wellington 6145

You can also provide your submission using the online form at [www.govt.linz.nz/ptmc](http://www.govt.linz.nz/ptmc)

## Legal

### **Publication of submissions, the Official Information Act and the Privacy Act**

Land Information New Zealand (LINZ) is required to carry out its functions with transparency. Part of LINZ's purpose in collecting submissions is the intention to publish all, or part of, the submissions and points of view that we receive. LINZ may publish (but may also decide not to publish) any submissions and information that you provide to LINZ, or may provide that information to other parties.

### **Confidentiality**

If you are providing us with information which you wish to remain confidential please notify us of this. In particular, identify which part(s) of your submission you consider should remain confidential, and explain the reason(s) for that.

LINZ is bound by the Official Information Act 1982 and the Act will apply to any information that you provide to LINZ and our obligations under that Act may require us to release the information that you provide notwithstanding your notification and identification of confidentiality.

### **Personal information**

LINZ is bound by the Privacy Act 1993. Any personal information, including your name and address, which you supply to LINZ in the course of making a submission or providing a point of view, will be used by LINZ only in conjunction with the purpose of collecting the submissions.

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*When you make your submission, you consent to your personal information being published, unless you tell us otherwise. **If you do not want your personal information published, please tell us when you make your submission.***

## Disclaimer

The opinions and proposals contained in this document are currently under consideration; no final decision has been made in relation to the opinions and proposals and they do not reflect any decided or approved government policy.



# Appendix 1

## LIST OF TOPO50 SERIES MAPS LIKELY TO BE OFFSET PRINTED AND MAPS LIKELY TO BE PLOT PRINTED

Code	Name	Print Method			
BT24	ADA FLAT	Offset	AK03	Carnley Harbour	Plot
BT20	AHAURA	Offset	BZ10	CASCADE PLATEAU	Offset
PI11	Aitutaki	Plot	BV21	CASS	Offset
BY25	AKAROA	Offset	BP36	CASTLEPOINT	Plot
BN37	AKITIO	Plot	CC06	CASWELL SOUND	Offset
CA09	ALABASTER PASS	Offset	CA17	CATTLE CREEK	Offset
BE31	ALBATROSS POINT	Plot	BS20	CHARLESTON	Offset
CC13	ALEXANDRA	Offset	CG13	CHASLANDS	Offset
BN35	ALFREDTON	Offset	BV26	CHEVIOT	Plot
BW25	AMBERLEY BEACH	Plot	BX24	CHRISTCHURCH	Offset
CE04	ANCHOR ISLAND	Plot	BZ20	CLANDEBOYE	Plot
AI01	Antipodes Island Group	Plot	AY34	CLARIS	Offset
AX27	ARANGA	Plot	CF13	CLINTON	Offset
CB11	ARROWTOWN	Offset	CF14	CLYDEVALE	Plot
BY19	ARUNDEL	Offset		CODFISH ISLAND/ WHENUAHOU	Offset
BY21	ASHBURTON	Plot	CH08		Offset
BY18	ASHWICK FLAT	Offset	BN24	COLLINGWOOD	Offset
CA11	ASPIRING FLATS	Offset	CC05	COLONIAL HEAD	Plot
PI01	Atafu	Plot	BA36	COOKS BEACH	Plot
BF36	ATIAMURI	Offset	CE05	COOPER ISLAND	Offset
BA32	AUCKLAND	Offset	BA34	COROMANDEL	Offset
CE09	AVONDALE	Offset	BP27	CROISILLES HILL	Plot
BZ09	AWARUA POINT	Offset	CH13	CURIO BAY	Plot
CC12	BANNOCKBURN	Offset	KI04	Curtis Island	Plot
BF34	BENNEYDALE	Offset	BW23	CUST	Offset
BP35	BIDEFORD	Plot	AZ35	REPANGA	Plot
BY15	BIRCH HILL	Offset	CG11	DACRE	Plot
BY24	BIRDLINGS FLAT	Plot	CD05	DAGG SOUND	Plot
CE12	BLACK UMBRELLA	Offset	BV22	DAMPIER CORNER	Offset
BM39	BLACKHEAD	Plot	BM36	DANNEVIRKE	Offset
CE08	BLACKMOUNT	Offset	BX22	DARFIELD	Plot
BR28	BLENHEIM	Offset	AX28	DARGAVILLE	Plot
CB07	BLIGH SOUND	Offset	CD06	DEEP COVE	Offset
BI01	Bounty Islands	Plot	AK01	Disappointment Island	Plot
BU23	BOYLE VILLAGE	Offset	CJ08	DOUGHBOY BAY	Offset
AX31	BREAM HEAD	Plot	BZ16	DOVER PASS	Offset
BZ17	BURKES PASS	Offset	CE17	DUNEDIN	Offset
CM01	Campbell Island	Plot	CB14	DUNSTAN PEAK	Offset
AK04	Cape Bennett	Plot	BX25	DUVAUCHELLE	Offset
AV30	CAPE BRETT	Offset	BD45	EAST CAPE	Plot
BM24	CAPE FAREWELL	Plot	BE39	EDGE CUMBE	Plot
BK40	CAPE KIDNAPPERS	Plot	BP29	ENDEAVOUR INLET	Offset
BP30	CAPE KOAMARU	Plot	CD10	EYRE PEAK	Offset
AT24	CAPE REINGA	Offset	BZ18	FAIRLIE	Offset
AY32	CAPE RODNEY	Plot	PI03	Fakaofu	Plot
BN29	CAPE STEPHENS	Plot	BM25	FAREWELL SPIT	Plot
BN38	CAPE TURNAGAIN	Plot	BP33	FEATHERSTON	Offset
CC19	CAPE WANBROW	Plot	BY23	FISHERMANS POINT	Plot
CI02	CAPE YOUNG	Plot	CH10	FOVEAUX STRAIT	Plot
CB12	CARDRONA	Offset	BX15	FOX GLACIER	Offset

BM33	FOXTON	Plot	BE32	KAWHIA	Offset
BP28	FRENCH PASS TE AUMITI	Offset	BS28	KEKERENGU	Offset
BF39	GALATEA	Offset	BE34	KIHIKIHI	Offset
BX14	GILLESPIES BEACH	Offset	BL35	KIMBOLTON	Offset
BG43	GISBORNE	Offset	CD11	KINGSTON	Offset
CB10	GLENORCHY	Offset	BV18	KOKATAHI	Offset
CF12	GORE	Offset	BQ21	KONGAHU POINT	Plot
BP23	GOULAND DOWNS	Offset	BU19	KUMARA	Offset
BR21	GRANITY	Offset	BJ37	KURIPAPANGO	Offset
CG05	GREEN ISLETS	Plot	CB17	KUROW	Offset
BY12	HAAST	Offset	CC16	KYEBURN	Offset
BZ13	TIORIPATEA	Offset	CD04	LAKE BEATTIE	Plot
BX19	HAKATERE	Offset	BX18	LAKE CLEARWATER	Offset
BD33	HAMILTON	Offset	BW20	LAKE COLERIDGE	Offset
BU24	HANMER SPRINGS	Offset	CA13	LAKE HAWEA	Offset
BY11	HANNAHS CLEARING	Plot	BV19	LAKE KANIERE	Offset
BW17	HARIHARI	Offset	CE07	LAKE MONOWAI	Offset
BK39	HASTINGS	Offset	CD14	LAKE ONSLOW	Offset
BU21	HAUPIRI	Offset	BY13	LAKE PARINGA	Offset
BQ28	HAVELOCK	Offset	CF06	LAKE POTERITERI	Plot
BP22	HEAPHY BEACH	Offset	CE06	LAKE ROE	Offset
BA30	HELENSVILLE	Offset	BE38	LAKE ROTOMA	Offset
AX32	HEN and CHICKEN ISLANDS	Plot	BU22	LAKE SUMNER	Offset
BX13	HERETANIWHA POINT	Plot	BY17	LAKE TEKAPO	Offset
BB35	HIKUAU	Offset	BQ33	LAKE WAIRARAPA	Offset
BY20	HINDS	Plot	CA10	LAKE WILLIAMSON	Offset
AW26	HOKIANGA HARBOUR	Plot	CE14	LAWRENCE	Plot
BU18	HOKITIKA	Offset	KI05	L'Esperance Rock	Plot
CF11	HOKONUI HILLS	Offset	BN33	LEVIN	Offset
CB09	HOLLYFORD	Offset	BT23	LEWIS PASS	Offset
CB08	HOMER SADDLE	Offset	BX23	LINCOLN	Offset
AU25	HOUHORA	Plot	CA14	LINDIS PASS	Offset
BE42	HOUPOTO	Offset	AY33	HAUTURU	Plot
BE43	HUIARUA	Offset	CG06	LONG POINT	Plot
BL34	HUNTERVILLE	Plot	CF05	LONG SOUND	Plot
BB33	HUNUA	Offset	BZ21	LONGBEACH	Plot
CB15	IDABURN	Offset	BQ32	LOWER HUTT	Offset
CB18	IKAWAI	Offset	BD36	LOWER KAIMAI	Offset
CG10	INVERCARGILL	Plot	CE10	LUMSDEN	Plot
BG37	IWITAHU	Plot	BR22	LYELL	Offset
BY10	JACKSON BAY	Offset	KI03	Macauley Island	Plot
BN22	KAHURANGI POINT	Plot	BJ43	MAHIA PENINSULA	Plot
BK32	KAI IWI	Plot	BZ12	MAKARORA	Offset
AW28	KAIKOHE	Plot	BD38	MAKETU	Plot
BT27	KAIKOURA	Offset	BE36	MAMAKU	Offset
CI03	KAINGAROA	Plot	BK29	MANAIA	Plot
BF38	KAINGAROA FOREST	Offset	CD07	MANAPOURI	Offset
AZ30	KAIPARA HARBOUR	Offset	BT28	MANGAMAUNU	Offset
AZ29	KAIPARA HEAD	Plot	AV27	MANGAMUKA	Plot
AV26	KAITAIA	Plot	AY31	MANGAWHAI	Offset
BV17	KAKAPOTAHU	Plot	AU27	MANGONUI	Plot
BN32	KAPITI ISLAND	Plot	PI10	Manihiki	Plot
BQ22	KARAMEA	Offset	BB31	MANUKAU HARBOUR	Offset
BC36	KATIKATI	Offset	BR34	MANUREWA POINT	Plot
AW29	KAWAKAWA	Plot	BQ25	MAPUA	Offset
BR24	KAWATIRI	Offset	BK38	MARAEKAKAHO	Offset
AZ32	KAWAU ISLAND	Plot	BF45	MARAU POINT	Plot

BF31	MAROKOPA	Plot	BG42	NGATAPA	Plot
BQ34	MARTINBOROUGH	Offset	BC34	NGATEA	Plot
BL33	MARTON	Plot	BR33	NGAWI	Offset
CF07	MARY ISLAND	Offset	CF09	NIGHTCAPS	Plot
BP34	MASTERTON	Offset	PI04	Niue	Plot
BF40	MATAHI	Offset	BL36	NORSEWOOD	Offset
BK33	MATAHIWI	Offset	AT25	NORTH CAPE OTOU	Plot
BS23	MATAKITAKI	Offset	CC09	NORTH MAVORA LAKE	Offset
BD35	MATAMATA	Offset	CC07	NORTH WEST ARM	Offset
BD39	MATATA	Plot	CG15	NUGGET POINT	Plot
BF42	MATAWAI	Offset	BH42	NUHAKA	Plot
AY30	MAUNGATUROTO	Offset	PI02	Nukunonu	Plot
BC37	MAYOR ISLAND TUHUA	Plot	BH28	OAKURA	Plot
AZ36	MERCURY ISLANDS	Plot	CC18	OAMARU	Offset
BX20	METHVEN	Offset	BU27	OARO	Plot
KI02	Meyer Islands	Plot	BG32	OHURA	Offset
CD16	MIDDLEMARCH	Offset	BW15	OKARITO	Offset
CA08	MILFORD SOUND/ PIOPIOTAH	Offset	CA15	OMARAMA	Offset
CF15	MILTON	Plot	BL37	ONGAONGA	Offset
CA12	MINARET BAY	Offset	BG33	ONGARUE	Offset
BU20	MOANA	Offset	CC14	OPHIR	Offset
AZ34	MOEHAU	Offset	BF41	OPONAE	Offset
BH40	MOHAKA	Plot	BE41	OPOTIKI	Offset
BG31	MOKAU	Offset	BG30	OPOURAPA ISLAND	Plot
AX33	MOKOHINAU ISLANDS	Plot	BJ28	OPUNAKE	Plot
BD34	MORRINSVILLE	Plot	CG08	OREPUKI	Plot
CC17	MORRISONS	Offset	CA16	OTEMATATA	Offset
CE16	MOSGIEL	Offset	BV20	OTIRA	Offset
BP25	MOTUEKA	Offset	BX12	OTUMOTU POINT	Plot
BV25	MOTUNAU BEACH	Plot	CG14	OWAKA	Offset
BH36	MOTUTERE	Offset	CI05	OWENGA	Plot
CJ09	MOUNT ALLEN MOUNT ANGLEM	Offset	BW22	OXFORD	Offset
CH09	HANANUI	Offset	CD15	PAERAU	Offset
BZ14	MOUNT BARTH	Offset	BC35	PAEROA	Offset
BT26	MOUNT CLEAR	Offset	PI07	Palmerston	Plot
CB06	MOUNT ELDER MOUNT ELIE DE BEAUMONT	Plot	CD18	PALMERSTON	Plot
BX16	BEAUMONT	Offset	BM34	PALMERSTON NORTH	Offset
BD31	MOUNT KARIOI	Plot	AU29	PANAKI ISLAND	Plot
BS26	MOUNT MULLER	Offset	BB32	PAPATOETOE	Offset
BT25	MOUNT NORTHAMPTON	Offset	BP32	PARAPARAUMU	Offset
BV16	MOUNT ONEONE	Plot	CA19	PAREORA	Plot
BR26	MOUNT PATRIARCH	Offset	BU26	PARNASSUS	Plot
BZ11	MOUNT POLLUX	Offset	BQ36	PATANUI STREAM	Plot
BS24	MOUNT ROBERT	Offset	BK30	PATEA	Plot
BJ34	MOUNT RUAPEHU	Offset	CC15	PATEAROA	Offset
BX17	MOUNT SIBBALD	Offset	BN23	PATURAU RIVER	Offset
BY16	MOUNT STEVENSON MOUNT TARANAKI or EGMONT	Offset	BY22	PENDARVES	Plot
BJ29	EGMONT	Offset	BP26	PEPIN ISLAND	Plot
BY14	MOUNT WARD	Offset	CD12	PIANO FLAT	Offset
BD40	MOUTOHORA ISLAND	Plot	BB30	PIHA	Offset
BR23	MURCHISON	Offset	BK28	PIHAMA	Plot
CB16	NASEBY	Offset	BF32	PIOPIO	Offset
PI06	Nassau	Plot	BJ32	PIPIRIKI	Offset
BQ26	NELSON	Offset	BE33	PIRONGIA	Offset
BH29	NEW PLYMOUTH	Offset	BG34	PIROPIRO PITT ISLAND/ RANGIAURIA	Offset
			CI06	RANGIAURIA	Plot
			BK34	POHUNUI	Plot

CI01	POINT SOMES	Plot	BK35	TAIHAPE	Offset
CA07	POISON BAY	Plot	BP24	TAKAKA	Offset
BN36	PONGAROA	Plot	AX29	TANGOWAHINE	Plot
AW32	POOR KNIGHTS ISLANDS	Plot	BK36	TAOROA JUNCTION	Offset
BM38	PORANGAHAU	Plot	CE13	TAPANUI	Offset
BP31	PORIRUA	Plot	BQ24	TAPAWERA	Offset
CJ10	PORT ADVENTURE	Offset	BS27	TAPUAE O UENUKU	Offset
BN28	PORT HARDY	Offset	CB13	TARRAS	Offset
AK02	Port Ross	Plot	BG36	TAUPO	Offset
BC31	PORT WAIKATO	Plot	AU28	TAUPO BAY	Plot
BD44	POTAKA	Plot	BD37	TAURANGA	Offset
PI05	Pukapuka	Plot	AV25	TAUROA PENINSULA	Plot
BC32	PUKEKAWA	Offset	BJ36	TAWAKE TOHUNGA	Offset
BS19	PUNAKAIKI	Plot	BW19	TAYLORS CAMP	Offset
BE35	PUTARURU	Offset	CD08	TE ANAU	Offset
CJ07	PUTAUHINA ISLAND	Plot	BH38	TE HAROTO	Offset
BH39	PUTORINO	Offset	BD42	TE KAHA	Plot
CC11	QUEENSTOWN	Offset	BF43	TE KARAKA	Plot
BJ33	RAETIHI	Offset	BC33	TE KAUWHATA	Plot
BD32	RAGLAN	Offset	AY28	TE KOPURU	Plot
BQ27	RAI VALLEY	Offset	BF33	TE KUITI	Plot
PI09	Rakahanga	Plot	BJ38	TE POHUE	Offset
BW24	RANGIORA	Offset	BE44	TE PUIA SPRINGS	Plot
BH37	RANGITAIKI	Offset	BQ35	TE WHARAU	Plot
KI01	Raoul Island	Plot	BB34	THAMES	Offset
PI12	Rarotonga	Offset	BB37	THE ALDERMAN ISLANDS	Plot
BD43	RAUKOKORE	Plot	AS21	THREE KINGS IS/ MANAWATAWHI	Plot
BH34	RAURIMU	Offset	BG35	TIHOI	Offset
AW27	RAWENE	Offset	BK37	TIKOKINO	Offset
BS21	REEFTON	Offset	BZ19	TIMARU	Plot
BH33	RETARUKE	Offset	BH32	TOKIRIMA	Offset
CE11	RIVERSDALE	Plot	BF44	TOLAGA BAY	Plot
CG09	RIVERTON APARIMA	Offset	BR25	TOPHOUSE	Offset
BE37	ROTORUA	Offset	BN25	TOTARANUI	Offset
CD13	ROXBURGH	Offset	CF08	TUATAPERE	Offset
CH11	RUAPUKE ISLAND	Plot	BH35	TURANGI	Offset
BG39	RUATAHUNA	Offset	AW31	TUTUKAKA	Plot
BG41	RUATIKURI	Offset	BZ15	TWIZEL	Offset
AY29	RUAWAI	Plot	BH30	URENUI	Plot
BT19	RUNANGA	Offset	BV23	VIRGINIA	Offset
AV29	RUSSELL	Offset	BU25	WAI AU	Offset
CG07	SAND HILL POINT	Offset	AU26	WAIHARARA	Plot
BR29	SEDDON	Offset	BA33	WAIHEKE ISLAND	Offset
BS25	SEVERN	Offset	BR27	WAIHOPAI	Offset
BN34	SHANNON	Offset	BL31	WAIINU BEACH	Plot
BS22	SHENANDOAH	Offset	BG40	WAIKAREMOANA	Offset
SI01	Snares Islands SOLANDER ISLAND/	Plot	BQ29	WAIKAWA	Offset
CH05	HAUTERE	Plot	CD17	WAIKOUAITI	Offset
CK08	SOUTH CAPE WHIORE	Plot	BW14	WAIKOWHAI BLUFF	Plot
CD09	SOUTH MAVORA LAKE	Offset	BL39	WAIMARAMA	Plot
BW21	SPRINGFIELD	Offset	CB19	WAIMATE	Plot
BT22	SPRINGS JUNCTION	Offset	BF37	WAIOTAPU	Offset
BJ30	STRATFORD	Plot	BJ35	WAIOURU	Offset
BJ31	STRATHMORE	Offset	CH12	WAI PAPA POINT	Plot
PI08	Suwarrow	Plot	BV24	WAI PARA	Plot
CE18	TAIAROA HEAD	Plot	BJ40	WAI PATIKI BEACH	Plot
CF16	TAIERI MOUTH	Plot	BE45	WAIPIRO BAY	Plot

BL38	WAIPUKURAU	Plot	BE40	WHAKATANE	Offset
BG38	WAIKAPUKAO	Offset	BB36	WHANGAMATA	Offset
BH41	WAIROA	Plot	BH31	WHANGAMOMONA	Offset
CE15	WAITAHUNA	Offset	BG44	WHANGARA	Plot
CI04	WAITANGI	Plot	AX30	WHANGAREI	Offset
BA31	WAITEMATA HARBOUR	Offset	AV28	WHANGAROA	Offset
CA18	WAITUNA	Offset	AW30	WHANGARURU	Offset
BT21	WAIUTA	Offset	BH43	WHARERATA	Plot
CC10	WALTER PEAK	Offset	BW16	WHATAROA	Offset
BL32	WANGANUI	Plot	BJ39	WHIRINAKI	Offset
BQ23	WANGAPEKA SADDLE	Offset	BW18	WHITCOMBE PASS	Offset
BS29	WARD	Plot		WHITE ISLAND	
AZ31	WARKWORTH	Offset	BC40	WHAKAARI	Plot
BK31	WAVERLEY	Plot	BA35	WHITIANGA	Offset
BM37	WEBER	Plot	BX21	WINDWHISTLE	Plot
CC08	WELCOME POINT	Offset	CF10	WINTON	Plot
BQ31	WELLINGTON	Offset	BM35	WOODVILLE	Offset
CF04	WEST CAPE	Plot	CG12	WYNDHAM	Plot
BR20	WESTPORT	Offset			
BF35	WHAKAMARU	Offset			

**LIST OF TOPO250 SERIES MAPS LIKELY TO BE OFFSET PRINTED AND MAPS LIKELY TO BE PLOT PRINTED**

Code	Name	Print Method			
250-01	NORTH CAPE	Plot	250-17	GREYMOUTH	Offset
250-02	KAIKOHE	Plot	250-18	MURCHISON	Offset
250-03	WARKWORTH	Plot	250-19	KAIKOURA	Offset
250-04	DARGAVILLE	Plot	250-20	MARTINS BAY	Plot
250-05	AUCKLAND	Plot	250-21	HAAST	Offset
250-06	TAURANGA	Plot	250-22	TIMARU	Offset
250-07	EAST CAPE	Plot	250-23	CHRISTCHURCH	Offset
250-08	NEW PLYMOUTH	Plot	250-24	DUSKY SOUND	Plot
250-09	TAUMARUNUI	Plot	250-25	TE ANAU	Offset
250-10	NAPIER	Offset	250-26	ALEXANDRA	Offset
250-11	GISBORNE	Plot	250-27	DUNEDIN	Offset
250-12	TAKAKA	Offset	250-28	TUATAPERE	Plot
250-13	NELSON	Offset			
250-14	PALMERSTON NORTH	Offset	250-29	INVERCARGILL	Plot
250-15	DANNEVIRKE	Plot	250-30	OWAKA	Plot
250-16	WELLINGTON	Plot	250-31	CHATHAM ISLANDS	Plot

**LIST OF OTHER SERIES MAPS LIKELY TO BE OFFSET PRINTED AND MAPS LIKELY TO BE PLOT PRINTED**

**Offshore Islands**

<b>Auckland Islands</b>		
AK01	Disappointment Island	Plot
AK02	Port Ross	Plot
AK03	Carnley Harbour	Plot
AK04	Cape Bennett	Plot
<b>Campbell Island</b>		
CM01	Campbell Island / Motu Ihupuku	Plot
<b>Kermadec Islands</b>		
KI01	Raoul Island	Plot
KI02pt	Meyer Islands	Plot
KI03	Macauley Island	Plot
KI04	Curtis Island	Plot
KI05	L'Esperance Rock	Plot
<b>Antipodes Island Group</b>		
AI01	Antipodes Island Group	Plot
<b>Bounty Islands</b>		
BI01	Bounty Islands	Plot
<b>Snares Islands</b>		
SI01	Snares Islands	Plot

**Pacific Islands**

<b>Cook Islands</b>		
PI05	Pukapuka	Plot
PI06	Nassau	Plot
PI07	Palmerston	Plot
PI08	Suwarrow	Plot
PI09	Rakahanga	Plot
PI10	Manihiki	Plot
PI11	Aitutaki	Plot
PI12	Rarotonga	Offset
PI13	Manuae	Plot
PI14	Takutea	Plot
PI15	Atiu	Plot
PI16	Penryn	Plot
PI17	Mangaia	Plot
PI18	Mitiaro	Plot
PI19	Mauke	Plot
<b>Tokelau</b>		
PI01	Atafu	Plot
PI02	Nukunonu	Plot
PI03	Fakaofu	Plot
<b>Niue</b>		
PI04	Niue	Offset

**Small Scale Series**

<b>242 Series</b>	1:500,000	Plot
<b>265 Series</b>	1:1,000,000	Plot
<b>266 Series</b>	1:2,000,000	Plot
<b>267 Series</b>	1:3,000,000	Plot
<b>268 Series</b>	1:4,000,000	Plot

**Antarctic Series**

<b>ME13</b>	<b>Cape Royds</b>	<b>Offset</b>
<b>ME14</b>	<b>Mount Erebus</b>	<b>Offset</b>
<b>MF13</b>	<b>Hut Point Peninsula</b>	<b>Offset</b>
<b>MF14</b>	<b>Windless Bight</b>	<b>Offset</b>

**Note:** There are another 51 sheets in the Antarctic that do not have any paper versions. These would be plotted if requested.